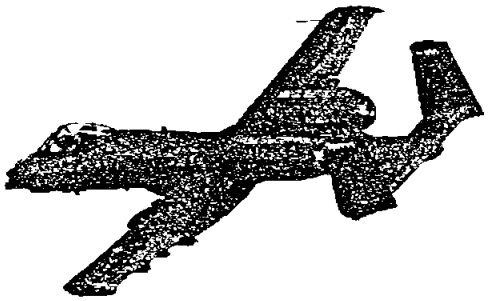
BASE REALIGNMENT AND CLOSURE CLEANUP PLAN KANSAS CITY MO
3/7/1995
RICHARDS GEBAUR AIR FORCE BASE

BRAC Cleanup Plan



07 March 1995

Operating Location Q
Air Force Base Conversion Agency
Kansas City, Missouri

Operating Location Q
Air Force Base Conversion Agency
BRAC Cleanup Plan

DECLARATION

This Base Realignment and Closure (BRAC) Cleanup Plan (BCP) sets forth a strategy for cleaning up contaminated sites at Air Force closure installations as expeditiously as possible. The Plan focuses on three main objectives contained within President Clinton's Five-Part Plan (July 1993) for converting closing military installations to productive reuse These include.

- Expedite site restoration so that property can be conveyed to the local redevelopment agency (Kansas City Aviation Department [KCAD]) as early as possible for reuse
- Protecting human health and the environment
- Optimizing program expenditures by adopting innovative remedial technologies and using "common sense" approaches to site restoration

This plan has been jointly prepared by the BRAC Cleanup Team (BCT) (represented by the Air Force BRAC Environmental Coordinator and the State of Missouri representative), which relies on inputs from BCT Working Group members, KCAD, and the public as expressed during Remedial Advisory Board meetings, other public forums, or through written comments.

The BCT acknowledges that this BCP serves as a road map for cleaning up Richards-Gebaur Air Force Base and agrees that the remedial strategies contained herein are to be implemented according to the schedules prescribed in the plan, subject to adequate Congressional funding. The BCT further acknowledges that the plan and environmental condition of the property changes over time and the BCP requires updating to accommodate these changes as new information becomes available.

The BRAC Cleanup Team:

P. Mark Esch, BRAC Environmental Coordinator (DoD BCT representative) Date

Robert Geller, Missouri Department of Natural Resources (State BCT representative Date

Robert Koke U.S. Environmental Protection Agency (U.S.EPA BCT representative Date

BRAC Cleanup Plan
Operating Location Q,
Air Force Base Conversion Agency
Kansas City, Missouri

Implementing President Clinton's
Decision to Promote Early Reuse of Closing Bases
by Expediting Environmental Cleanup

7 March 1995

List of Acronyms

ACM	asbestos containing material
AFB	Air Force Base
AFBCA	Air Force Base Conversion Agency
AOI	area of interest
ARAR	applicable or relevant and appropriate requirement
AST	Aboveground Storage Tank
BCRP	Base Comprehensive Reuse Plan
BCP	Base Realignment and Closure (BRAC) Cleanup Plan
BCT	Base Realignment and Closure (BRAC) Cleanup Team
BEC	BRAC Environmental Coordinator
BRAC	Three definitions: (1) Base Closure and Realignment Act of 1988 (2) Defense Base Closure and Realignment Act of 1990 (3) Base Realignment and Closure
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERFA	Community Environmental Response Facilitation Amendment
CFR	Code of Federal Regulations
CRP	Community Relations Plan
DERP	Defense Environmental Restoration Program
DoD	Department of Defense
DSMOA	Department of Defense and State Memorandum of Agreement (Missouri)
EA	Environmental Assessment
EBS	Environmental Baseline Survey
EBSS	Environmental Baseline Survey Suppliment
EIAP	environmental impact analysis process
EIS	Environmental Impact Statement
EO	Explosive Ordinance
FAA	Federal Aviation Administration
FS	Feasibility Study
FUDS	Formerly Used Defense Sites
FY	(United States Government) Fiscal Year
GSA	General Services Administration
IRA	Interim Remedial Action
IRP	Installation Restoration Program
IRPIMS	Installation Restoration Program Information Management System
JP-4	Jet Propulsion (fuel), Grade 4
MDNR	Missouri Department of Natural Resources

List of Acronyms, continued

MDOH	Missouri Department of Health
NCP	National Oil and Hazardous Substance Pollution Contingency Plan
NDI	non-destructive inspection
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
OLQ	Operating Location (Q) of AFBCA
OSHA	Occupational Safety and Health Administration
OWS	oil-water separator
PA	Preliminary Assessment
PAH	polynuclear aromatic hydrocarbons
PCB	polychlorinated biphenyls
POL	petroleum, oil and lubricants
POTW	Publicly (or Privately) Owned Treatment Works
ppb	parts per billion
ppm	parts per million
QA/QC	quality assurance/quality control
RA	Remedial Action
RAB	Remedial Advisory Board
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation
RIP	Remedy In Place
RPM	Remedial Project Manager
SARA	Superfund Amendments and Reauthorization Act
SI	Site Inspection
SQG	small quantity generator
TAG	Technical Advisory Group
TPH	total petroleum hydrocarbons
TSCA	Toxic Substances Control Act
USEPA	United States Environmental Protection Agency
USGS	United States Geological Service
UST	underground storage tank

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EXECUTIVE SUMMARY

Introduction

This Base Realignment and Closure (BRAC) Cleanup Plan (Plan) contains the status, management and response strategy, and action items related to the ongoing environmental restoration, and associated compliance activities to convey all base property by 1999 These programs support full restoration of the property, which is necessary to meet the requirements for property conveyance and reuse associated with the closure of the installation. The scope of this plan also includes strategies for complying with federal, state and local environmental regulations and laws.

This plan is a living document used for planning purposes; information and assumptions presented may not necessarily have approval from the Air Force and/or federal and state regulatory agencies. The BCP is dynamic in nature, and will be updated as-needed to reflect the current status and strategies of environmental restoration efforts. The conditions and strategies for environmental restoration efforts or compliance in this plan are as of the date noted on each page. Current strategies and status may differ from those presented in this plan.

The BRAC Cleanup Team (BCT) concept was conceived in President Clinton's Five-Part Plan to speed economic recovery to communities affected by base closure. The BCT brings DoD, the State of Missouri and the Environmental Protection Agency (EPA) together in partnership, to speed restoration, cut red tape and establish a forum to resolve cleanup issues.

Key Restoration and Transferability Strategies and Schedules

The Air Force has actively pursued environmental restoration activities since 1982 with emphasis on remediating sites using quick response actions. The Air Force Base Closure Agency now manages this former Air Force Base and is pursuing environmental restoration with the same emphasis. The BCT formed a BCT Working Group and a Restoration Advisory Board to ensure that the environmental response objectives of the community are successfully integrated with the property transfer goals in an expeditious manner. The BCT's strategy is to utilize contractors and State and Federal personnel to arrive at a consensus on environmental issues. The purpose of the Working Group is to focus on specific technical issues to support the BCT, and ensure all environmental actions comply with the intent of applicable laws and regulations. Both the Restoration Advisory Board and Working Group were formed to ensure human health and the environment are protected while promoting economic revitalization to the local community Key issues facing the BRAC Cleanup Team in 1995 can be found in Table ES-1

Status of Disposal, Reuse, and Interim Lease Process

Richards-Gebaur AFB officially closed 30 September 1994, and Operating Location Q. of the Air Force Base Conversion Agency assumed operational control of the property. The Air Force Base Conversion Agency is now responsible for environmental restoration and compliance related to base closure, with overall transfer of responsibility for base property. The environmental impact of the base closure action has been assessed in the Final Environmental Impact Statement, July 1994.

The National Environmental Policy Act requires that all actions be reviewed for environmental impact. The closure and subsequent reuse of this military installation exhibited conditions under this Act which required the preparation of an Environmental Impact Statement. The Environmental Impact Statement, which assessed the impact of base closure on the community, was presented in a public meeting March 23rd, 1994. Public and regulatory agency comments and Air Force responses are included within the Final Environmental Impact Statement. The final Record of Decision approving closure and reuse is expected in April 1995. As part of the process, AFBCA will prepare a property Disposal Plan that will outline the priorities and methods of disposal for the property.

About eighty percent (80%) of the base property was declared excess to Department of Defense needs and was transferred to the General Services Administration in 1980. The General Services Administration subsequently transferred property to the local communities as a public benefit and to other branches of the military. Property that was previously transferred is not included in this plan. The Air Force Reserve retained 11 parcels totaling 428.22 acres, which are included in this BRAC closure effort.

Community Involvement

The Remedial Action Board.(Restoration Advisory Board).was formed in February of 1994 and met for the first time on the 1st of March 1994. The Restoration Advisory Board now meets on a quarterly basis, and assists the BRAC Cleanup Team (BCT) by providing community input on cleanup priorities. The Restoration Advisory Board ensures that the community is aware of and has a voice in the environmental restoration of the property

Status of Environmental Restoration Program

Operating Location Q is not on the National Priorities List and the ongoing Installation Restoration Program (IRP) is not subject to a Federal Facility Agreement with the U.S. Environmental Protection Agency Region VII. The IRP sites at this military installation were identified by the Department of Defense's implementation of the provisions contained in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) The Department of Defense has entered into a cooperative agreement known as the Department of Defense and State Memorandum of Agreement with Missouri Department of Natural Resources

for oversight and guidance for Department of Defense's implementation of site restoration activities. Since 1982, the IRP has identified eight sites located in currently owned parcels, and additional sites on property now owned or indentured to other parties. The Army Corps of Engineers is responsible for environmental restoration on property formerly owned by the Department of Defense. Seven IRP sites are located within a half mile of Richards-Gebaur Memorial Airport, and one IRP site is located four miles south of the airport. These eight sites are in various phases of investigation, remediation, or close-out.

- **Site XO001, Belton Training Complex,** is in the Preliminary Assessment phase. Waste left over from ordnance and munitions disposal operations are evident on the ground surface. Recently, 197 ferro-magnetic anomalies were mapped out at the site. Within the area of anomalies, screening samples identified traces of RDX and TNT (explosives). The area should be "deemed safe" by the Air Force Reserve sometime mid-1995 Evaluating the environmental impact that munitions disposal has on the area is scheduled shortly after the area is "deemed safe."

- **Site FT002, North Burn Pit,** is in the Remedial Investigation phase. Concentrations of Lead are present in small quantities (up to 510 mg/kg) in the surface soils. The risk assessment indicates that the risk to human health (lead exposure by ingestion) should not be a concern in an industrial environment. However, the Missouri Department of Health (MDOH) guidance indicates that the concentration of lead exceeds (240 mg/kg) the level which MDOH has set for property that can be used (zoned) for any purpose. Data for groundwater are inconclusive due to different interpretations of the analytical results. The BRAC Cleanup Team is resolving this issue by using an EPA contractor to independently evaluate the data.

- **Site SS003, Oil Saturated Area,** has undergone an Interim Remedial Action during 1992 which removed petroleum and lead contaminated soil in excess of the action level. The site remains in the Site Inspection phase to assess impact of petroleum and lead contamination on the area groundwater. Sampling will occur in 1995.

- **Site SS004, Hazardous Waste Drum Storage,** has undergone an Interim Remedial Action during 1992 which removed petroleum contaminated soil in excess of the action level. The site remains in the Site Inspection phase to assess impact of petroleum contamination on the area groundwater. Sampling will occur in 1995.

- **Site SS006, Hazardous Material Storage,** has undergone an Interim Remedial Action during 1993 which removed all polynuclear aromatic hydrocarbons in excess of the MDOH health-based cleanup levels. The site remains in the Site Inspection phase to assess impact of polynuclear aromatic hydrocarbon contamination on the area groundwater. Sampling will occur in 1995.

- **Site ST007, Leaking Underground Storage Tanks,** was formerly contaminated with kerosene-grade jet fuels. An Interim Remedial Action initiated in 1988 removed

hydrocarbon contamination from the soil to a level below what is required by MDNR Underground Storage Tank policy. Additional groundwater monitoring and sampling is necessary to assess and monitor the effectiveness of the Interim Remedial Action.

- **Site SS008, Test Cell Area,** is in the Site Inspection phase. To-date, contamination of a significant nature has not been confirmed. Additional sampling is slated for this site in 1995.

- **Site SS009, Fire Valve Area,** is in the Site Inspection phase. Petroleum, volatile organic compounds, and non-carcinogenic polynuclear aromatic hydrocarbon contamination has been confirmed in the soil samples. An Interim Remedial Action removed a small portion of the hydrocarbon contaminated soil in 1992 , and an additional Interim Remedial Action is planned for late 1995. Addition investigation in 1996 will determine the extent of contamination.

Status of Environmental Compliance Program

Compliance activities are planned for the property under applicable laws & regulations other than CERCLA. Some of the activities in this area have the potential of creating new IRP sites should sampling indicate a CERCLA waste. These activities are described below.

- **POL Storage Yard,** Bulk quantities of heating fuel and aviation fuel were stored at this site. Aviation fuel was piped to two locations on base from the storage yard. A number of spills has caused an estimated 3700 cubic yards of soil to be contaminated. The groundwater is not contaminated. Restoration begins in 1995.

- **Fuel Line-942 Section** Aviation fuel was pumped through a pipeline. The pipeline had one location where it leaked. Restoration begins in 1995.

- **OWS 9470B** This non-compliant oil-water separator will be removed from service after the POL Storage Yard is restored. Samples of the influent will be collected.

- **UST 962A & UST 962B** These unused underground storage tanks will be excavated and closed during 1995. The tanks are equipped with leak detection. No contamination expected.

- **UST 620A** This underground storage tank was used to store waste jet fuel and small amounts of waste acid generated by a fuel testing laboratory. The tank was removed and petroleum contaminated soils remain. Site restoration is planned.

Several compliance programs have been identified wherein compliance activities are not foreseen in the future. Those programs are, natural and cultural resources (prehistoric sites, historic resources, paleontological resources, endangered species, threatened species, sensitive habitat, wetlands, flood plains and traditional resources), PCB management, radon, lead-based paint,

aboveground storage tanks, hazardous materials management, wetland protection and air emissions.

Status on Areas Of Interest

Certain areas of the Air Force property exhibit waste release characteristics or require data with a higher level of confidence to confirm or refute contamination. If sampling indicates contamination, a new compliance site or even a new IRP site might be created The areas of interest to the BCT are described below. Areas that the BCT has deemed clean are not listed.

- **Drainage Pond** A stormwater collection pond exists near one of the runways. This pond collects rainwater from a 140 acre watershed located over the airport runways. Sediments at the base of the pond contain traces of PCBs and petroleum. A site characterization study is nearing completion. The BCT has agreed to defer restoration (if required) until other activities that rely on the continued operation of the pond are completed.

- **Tarmac Fuel Line Area** Aviation fuel was pumped through a pipeline to "gas up" military aircraft. The integrity of the pipeline has not been tested. Fuel spill residues may be present in the same area since a majority of the recorded spills occurred upgradient of this area. Samples will be collected this year.

- **Rifle Range** Small arms training and target practice were conducted at this location. The investigation of this area is complete. Contaminant traces were found, but below any health risk levels and environmental standards. The BCT is deciding if physical screening is warranted based on the recent date of the study.

- **Stressed Vegetation B603** It was reported that automobile owners/operators occasionally changed their engine motor oil at this location, causing the vegetation to be stressed. No vegetation stress is visible in the area today. Samples will be collected this year.

- **Stressed Vegetation B918** A 30 square foot patch of vegetation appears to be stressed on the north side of hangar 918. Samples will be collected this year.

- **Central Drainage Area** This poorly drained area receives stormwater collected from half of the flightline hangars. Screening samples indicate lead and chlorinated hydrocarbons are in the sediments. Additional data is needed to confirm the samples and determine if any health risk exists.

- **UST 965A** This excavated underground storage tank was used to store waste liquids from two hangars. Records research indicates the soil was not tested for all products stored in the tank. Additional samples will be collected this year.

- **UST Removal Projects** Removal methods employed by an Air Force contractor are suspect due to the presence of petroleum contamination within one of the tank excavations reportedly closed. Random samples will be collected to confirm or refute the presence of contamination.

Summary of Current BCT Action Items

Action items and issues associated with environmental restoration, compliance, technical, and management action items that require further evaluation and implementation by the BRAC Cleanup Team.

Table ES-1. BRAC Cleanup Team Action Items

Action Item	Action Item In Progress	Action To Be Taken
Installation Restoration Program		
Capture and fill property-wide groundwater data gaps	√	
Continue to discuss data gaps for each IRP site	√	
Continue to refine restoration strategies for each IRP site	√	
Provide input for on-line EBS updates	√	
Compliance or Fast-Track		
Obtain an airport-wide stormwater permit	√	
Close 2 underground storage tanks, 1 oil-water separator, and 1 fuel line leak	√	
Close 1 hazardous waste underground storage tank	√	
Validate sampling done during a UST removal project	√	
Close 2 underground storage tanks and 1 oil/water separator	√	
Restore PCB-contaminated stormwater detention pond		√
Ensure the reuse is compatible with the EIS and NEPA	√	
Collect and evaluate AOI samples	√	
CERCLA 120 (h)(3)		
Maintain the environmental condition of property map	√	
Evaluate new data that would alter the environmental condition of property map	√	
Come to agreement on CERFA categories for all property.	√	
Community Relations		
Hold an Environmental Open House during the Airshow		√
Update Community Relations Plan	√	
Keep the Restoration Advisory Board up-to-date.	√	
Management/Administration		
Restoration Advisory Board and BCT charters	√	
Add one off-site Information Repository		√
Update this Plan at least once each year	√	
Keep pressure on the Air Force Reserve to "safe" the Belton Training Complex	√	

Chapter 1 Introduction and Summary

In the past, wastes at the former Richards-Gebaur Air Force Base were managed and disposed of according to the practices of the time. Although these practices were acceptable at the time, they did not provide the same level of protection to human health and the environment as current practices today, and these practices impacted some areas of the property. In response to historical accounts of these practices, an environmental restoration program was initiated at the Base in 1982. Additionally, while operational, many compliance programs were implemented to ensure that waste and resource management practices met or exceeded the intent of applicable laws and regulations.

This Base Realignment and Closure (BRAC) Cleanup Plan (Plan) summarizes the current status of the environmental restoration and associated environmental compliance programs, and presents a comprehensive strategy for implementing response actions necessary to protect human health and the environment. This strategy integrates activities being performed under the Installation Restoration Program (IRP) and the associated environmental compliance programs to support full restoration of base property prior to the eventual transfer and reuse of the property by the local community and military.

This Plan is a dynamic document that is updated periodically to incorporate newly obtained information and/or reflect the completion or change in status of any cleanup actions. This document only provides a snapshot in time of the strategies and status of the environmental programs. Additional information may become available that cause the strategies and status presented within this plan to change. Furthermore, data, schedules, and cleanup technologies presented in this BRAC Cleanup Plan only represent plans developed by the BRAC Cleanup Team. This plan does not necessarily represent the Air Force, Federal, or State regulatory agency positions, nor have the planned actions been funded. Certain assumptions and interpretation occurred during the planning process. Additional data could dramatically alter scheduled implementation and cost.

Chapter 1 describes the objectives of the environmental restoration program, explains the purpose of the BRAC Cleanup Plan, introduces the BRAC Cleanup Team and provides a brief history of the military installation.

Chapter 2 summarizes the current status of the military property reuse planning process and describes the relationship of this process with environmental program objectives.

Chapter 3 summarizes the current status and past history of the restoration program and associated environmental compliance programs, community relations activities and the environmental condition of base property

Chapter 4 describes the strategy for environmental restoration and includes plans for managing responses under other environmental compliance programs

Chapter 5 provides master schedules of planned or anticipated activities to be performed throughout the duration of the environmental restoration and compliance program activities.

Chapter 6 describes specific unresolved technical and/or administrative issues and presents a strategy for resolving these issues.

Appendix A contains tables that present historical funding, active projects, and planned projects required to restore the military property to civilian needs and use.

Appendix B contains technical documents, data management information, and listings of previous environmental restoration program reports for various programs and restoration sites.

Appendix C summarizes various restoration decisions for which an Interim Remedial Action or Remedial Action was selected during the IRP site restoration process.

Appendix D summarizes decisions for all areas where no further action is planned or required.

Appendix E presents working conceptual models for each active restoration site

Appendix F presents other relevant data to this Plan.

1.1 Environmental Response Objectives

Some of the primary objectives of the environmental restoration and environmental compliance programs at this military installation are:

- Protect human health and the environment
- Strive to meet reuse goals established by the community
- Comply with existing statutes and regulations
- Conduct all restoration activities in a manner consistent with applicable laws or regulations
- Update the environmental baseline survey
- Establish priorities for environmental restoration and compliance activities
- Initiate early cleanup actions to control, eliminate, or reduce risks prior to extensive study and restoration commencement
- Identify and update areas suitable/unsuitable for leasing or transfer by deed
- Keep the Air Force apprised of property deemed suitable for transfer and those properties not suitable for transfer

1.2 BRAC Cleanup Plan Purpose, Updates, and Distribution

This Plan summarizes the status of the environmental restoration and compliance program, and the comprehensive strategy for implementing these programs. The purpose of the Plan is to

inform the reader on the status of the environmental program, outline the environmental history, define the objectives and goals of the environmental program and present a unified strategy for implementing environmental restoration and continued compliance of environmental laws and regulations. The Plan is a management tool which brings together all environmental factors that impact the early reuse of this closed military base and brings to focus those factors which are critical to the ultimate conversion of the property to community needs.

Updates to this Plan will occur annually. The Plan will be published and distributed to interested parties. During the period between publication dates, the latest changes to the plan can be obtained by contacting the BRAC Environmental Coordinator (Table 1-1).

1.3 BRAC Cleanup Team

The BRAC Cleanup Team for this military installation was established December 1993. The BRAC Cleanup Team is composed of one representative from the Air Force (the BRAC Environmental Coordinator), one representative from the Environmental Protection Agency (EPA) Region VII and one representative from the Missouri Department of Natural Resources (MDNR). The BRAC Cleanup Team is charged with the overall responsibility of expediting environmental restoration of base property and adjusting priorities based on the needs of the community where reasonable. The BRAC Cleanup Team also will conduct periodic program reviews and provide a forum for reaching consensus with federal and state regulators on requirements and actions to be taken. Table 1-1 lists BRAC Cleanup Team members and identifies their roles and responsibilities.

Table 1-1 BRAC Cleanup Team Members for Richards-Gebaur AFB

Name	Title & Address	Telephone & Fax Numbers	Roles & Responsibilities
P Mark Esch	BRAC Environmental Coordinator OL Q, AFBCA 15471 Hangar Road Kansas City, MO 64147-1220	V:816-348-2511x28 F 816-348-2515	DoD's BRAC Cleanup Team representative BRAC Environmental Coordinator RAB Cochairman
Bob Geller	Hazardous Waste Program Section Chief Missouri Department of Natural Resources (MDNR) Division of Environmental Quality Post Office Box 176 Jefferson City, MO 65102	V 314-751-3176 F 314-751-7869	Missouri's BRAC Cleanup Team representative RAB member
Bob Koke	Federal Facilities Section Program ***** U S Environmental Protection Agency, Region 7 726 Minnesota Avenue Kansas City, KS 66101	V 816-551-7468 F 816-551-7063	EPA s BRAC Cleanup Team representative RAB member

An advisory group consisting of Air Force personnel, contractors, State and Federal agency personnel provide the BRAC Cleanup Team the necessary expertise on an as-needed basis. This group includes individuals with expertise in environmental engineering, chemistry, hydrogeology, risk assessment, real estate, etc. These individuals meet during BRAC Cleanup Team working group meetings to recommend resolutions to technical issues, discuss regulatory comments and concern, evaluate the conclusions contained in studies, discuss the strategy or options for site restoration, etc. Topics may also include the benefits or drawbacks of various treatment and remediation technologies, data quality assurance/quality control (QA/QC), data analysis and gaps, background levels of contaminants in different media, restoration acceleration,

The list below indicates key participants in the working group meetings. Many additional individuals contribute to the restoration efforts, but are not listed.

Table 1-2 BRAC Cleanup Team Working Group

Name	Title & Address	Telephone & Fax Numbers	Roles & Responsibilities
Garey Reeves	Site Manager & Transition Coordinator OL Q, AFBCA 15471 Hangar Road Kansas City, MO 64147-1220	V 816-348-2511 F 816-348-2515	Base Conversion Coordinator Community Liaison
Glenn Golson	Environmental Specialist Missouri Department of Natural Resources (MDNR) Division of Environmental Quality Post Office Box 176 Jefferson City, MO 65102	V:314-751-3061 F 314-751-7869	MDNR Hazardous Waste Program Specialist Project Manager Geologist
Kris Davidson	Federal Facilities Section Manager Missouri Department of Natural Resources (MDNR) Division of Environmental Quality Post Office Box 176 Jefferson City, MO 65102	V 314-751-3333 F.314-751-7869	MDNR Hazardous Waste Program Specialist Geologist
Ellen-Jo Valade	Contract Administrator OL Q, AFBCA 15471 Hangar Road Kansas City, MO 64147-1220	V·816-348-2511 F 816-348-2514	Contracting Specialist
Minnie Butcher	Air Force Center for Environmental Excellence 8001 Inner Circle Drive Suite 100 Brooks AFB, TX 78235	V 210-536-5274 F·210-536-9026	AFCEE Environmental Project Manager Restoration Project Specialist
Fred Waterman	Air Force Center for Environmental Excellence 8001 Inner Circle Drive Suite 100 Brooks AFB, TX 78235	V 210-536-5209 F 210-536-3609	AFCEE Environmental Project Manager Restoration Project Specialist

1.4 Brief History of Richards-Gebaur AFB

Richards-Gebaur AFB is a closed military installation, operated by Operating Location Q, Air Force Base Conversion Agency (AFBCA), located in west-central Missouri, approximately 18 miles south of downtown Kansas City and about 3 miles east of the Kansas state line. Richards-Gebaur AFB has no sites on EPA's National Priorities List and has not entered into a Federal Facility Agreement. A large portion of the property is next to Richards-Gebaur Memorial Airport, with the remainder four miles to the south.

Richards-Gebaur Memorial Airport is located within the Osage Plains region of the Central Lowland physiographic province The region is characterized by low relief, wide, maturely dissected uplands, and relatively steep valley slopes The topography of the airport is gently rolling with an elevation range between 1,060 feet and 960 feet above mean sea level. Most of the stormwater at the airport drains into the Little Blue River with the exception of Parcel M which drains into the West Fork of East Creek Both of these watersheds ultimately flow into the Missouri River

The geology of the base is characterized by thin loess deposits over residual soils derived from the in place weathering of the underlying limestones and shales The soils belong to the Macksburg-Urban series, which is defined as being poorly drained silt and silt clay loams, covered in places by urban features Rock outcrops are found along Scope Creek include the

Argentine Limestone Member of the Wyandotte Formation, the Lane Formation, the Raytown Limestone Member of the Iola Formation limestone, and the Chanute Formation. The Argentine Member is a light gray limestone characterized by thin, wavy bedding, except in the lower few feet, where the unit is thick-bedded. The Lane Formation is a medium gray to bluish gray shale that is commonly silty in the upper part. The Raytown Member is a medium bluish gray, wavy bedded limestone, locally containing interbedded lenses of shale approximately 3 inches thick. The Chanute Formation is a gray, red, purplish red, and green shale with thin nodular limestone near the middle, and local occurrences of cross bedded sandstone and conglomerate. All of the exposed units are Pennsylvanian in age. The weathered zone overlying these rocks (in the undisturbed state) is typically 2 to 15 feet thick. The soil is generally fine silty clay with a hydraulic conductivity of approximately 1x10E-7 centimeters per second. The depth to groundwater is generally shallow, but varies seasonally, following the general topography, the variance of which is highly dependent on the number and composition of the perched aquitards.

In 1941, portions of the land now owned by the Air Force were acquired by Kansas City for use as an auxiliary airport (Grandview Airport). In 1952, the Aerospace Defense Command leased the airport from the city for air defense operations, and in 1953 the property approximately 2,400 acres) was formally conveyed to the United States government for establishment of Grandview Air Force base. The C-46 airlift aircraft were the original Air Force aircraft stationed at the base. A conversion to C-119 aircraft occurred in 1957, followed by the conversion to C-124 aircraft in 1961. In 1957, the base was renamed Richards-Gebaur AFB in honor of two aviators who died in the service of their country.

Until 1970, the Air Defense Command commanded the Richards-Gebaur AFB. In 1970, the Air Force Communications Service relocated its headquarters from Scott AFB, Illinois, to Richards-Gebaur AFB and assumed command. In 1971, the C-124 reciprocating engine aircraft were phased out and replaced with C-130 aircraft. The Air Force Communications Service moved back to Scott AFB in 1977 and Richards-Gebaur AFB became a Military Airlift Command base.

The number of active duty military and civilians at Richards-Gebaur AFB was reduced from a maximum of around 5,000 personnel to about 500 full-time personnel By September 1979, the majority of the operating support functions were transferred to Talley Services, Inc., a civilian contractor. The Air Force Reserve assumed operational control of the base in October 1980. In 1981, around 80% of the base property (including runways and taxiways) was transferred to the General Services Administration. The General Services Administration then transferred a majority of airport-related property to Kansas City Aviation Department as a public benefit transfer with the stipulation of continued runway access (for a fee) by the Air Force. Other excessed parcels were also transferred by the General Services Administration for public and other military uses to Kansas City, Federal Aviation Administration, City of Belton, the Department of the Navy, and the Department of the Army In 1982, the base mission changed, and this resulted in a conversion to A-10 fighter aircraft

The base was officially closed on September 30, 1994 The property presently is comprised of about 428 acres contained in eleven non contiguous parcels Associated with this acreage is about 421 acres of easements The remaining property is slated for both military and civilian

reuse and is under the operational control of the Air Force Base Conversion Agency. Table 1-3 summarizes the history of this military installation. Figure 1-1 presents locations where past hazardous waste activities are known to have impacted the property.

Table 1-3 History of Installation Operations at Richard-Gebaur AFB

Period	Type of Operations	Defense System(s) Supported	Hazardous Substance Activities on currently owned property
Pre-1941	Agriculture, Pasture, Undeveloped	None	N/A
1941-1952	Grandview Airport (auxiliary to greater Kansas City area)	None	General civilian aircraft maintenance
1952-1970	Aerospace Defense Command (ADC)	F-86, F-102 and F-106 fighters; C-46, C-119 and C-124 cargo aircraft	Aircraft maintenance activities, munitions storage, bulk fuel storage, fuel hydrant system, fire protection training
1970-1977	Air Force Communications Service (AFCS)	C-130 cargo aircraft (1971)	Same as above except and hazardous waste generation was cut in half
1977-1980	Military Airlift Command (MAC)	C-130 cargo aircraft	Same as above except fuel hydrant system decommissioned
1980-1982	Air Force Reserve 442nd Airlift Wing	C-130 cargo aircraft	Same as above except fewer personnel
1982-1994	Air Force Reserve 442nd Fighter Wing	A-10 Thunderbolt II fighter aircraft	Same as above except fire training haulted in 1989 and waste cut in half
1994-present	Air Force Base Conversion Agency	None	None

1.5 Property and Tenants

The history of property acquisition is provided in Table 1-4 A description of each reuse parcel is provided in Table 1-5 and can be located on Figure 1-1. A history of base property transactions and a summary of existing easements can be found in Appendix F. The land uses adjacent to base property are shown in Table 1-5.

Table 1-4 Property Acquisition/Loss Summary (incomplete)

Tract No.	Previous Land Owner	Fee Land (acres)	Easements (acres)	Date
100	City of Kansas City	1,787 50		1953
101	Frank C Denny	5 0		1953
102 E	Columbian Hog and Cattle Powder Company		39 18	1953
201	Edwin Hawthorne	226 00		1953
202	John E Cheatham	50 01		1953
202 E	John E Cheatham		2 09	1953
203	Eliza Jean Taylor estate	55.32		1953
205	Jack L Gabriel	78.32		1953
206 E	Eliza Jean Taylor estate		77 44	1953
207 E	Jack L Gabriel		134 90	1953
103	Columbian Hog and Cattle Powder Company	2 3		1956
103 E	Columbian Hog and Cattle Powder Company		0 04	1956
104	Carl Hoelzel Inc	59 42		1957
105	Christine Gehrs	4 25		1957
106	Charles M Jennings	40		1957
109	Fieada Potter Welbourn	0 13		1957
109 E	Fieada Potter Welbourn		0.12	1957
114	Henry L. Jost Jr	29 05		1957
208	Gertrude Belden	0 87		1957
208 E	Gertrude Belden		0 07	1957
119	City of Kansas City	6.42		1958
119 E	City of Kansas City		0 68	1958
112 E	Ollie Bright		7 80	1959
110 E	Columbian Hog and Cattle Powder Company		24.14	1960
113 E	Richard L Dunlap	111 20		1960
115 E	Dorothy L McPherson		42.86	1960
116 E-1	Joseph C Beery		81.81	1960
116 E-2	Joseph C. Beery		24.92	1960
126 E	City of Belton		105.90	1999
127 E-1	City of Kansas City	20 33		1999
127 E-2	City of Kansas City	2 54		1999
127 E-3	City of Kansas City	2 03		1999

Table 1-5 Real Property (fee)

Reuse Parcel ID	Acres	Location	Adjacent Property Usage[2]	Environmental Status[3]	Year Acquired	Dates of Operation
Parcel A	85 03	Sec34 T47 R33	ASIPVM	NRFT	1953	1953-1994
Parcel B	72 77	Sec34-35 T47 R33	ASIEPVM	NRFT	1953	1953-1994
Parcel B-1	10 28	Sec3 T46 R33	ASIPVM	NRFT	1953	1953-1994
Parcel C	0 66	Sec3 T46 R33	ASIPM	OK	1953	1953-1994
Parcel D	1 20	Sec3 T46 R33	ASIPM	NRFT	1953	1953-1994
Parcel E	12 40	Sec34-35 T47 R33	IEPVM	NRFT	1953	1953-1994
Parcel E-1	23 79	Sec3 T46 R33	IPVM	NRFT	1953	1953-1994
Parcel F	2 65	Sec34 T47 R33	ASIPV	NRFT	1953	1953-1994
Parcel G	2 37	Sec35 T47 R33	ASIPV	NRFT	1953	1953-1994
Parcel H	2 29	Sec35 T47 R33	EPV	NRFT	1953	1953-1994
Parcel I	13 18	Sec2 T46 R33	EPVM	NRFT	1953	1953-1994

Parcel J	1 03	Sec3 T46 R33	ASPVM	NRFT	1953	1953-1994
Parcel K	2.86	Sec10 T46 R33	PV	NRFT	1953	1953-1994
Parcel L	9 44	Sec10 T46 R33	PV	NRFT	1953	1953-1994
Parcel M	183.65	Sec34 T46 R33	PV	NRFT	1953	1953-1994
Parcel N	0.00	N/A	ASIPVM	OK	1953	1953-1994
Parcel O	4.63	Sec34 T47 R33	IPM	NRFT	1953	1953-1994

(1) NRFT=Not Ready For Transfer OK=Environmentally Ready for Transfer

(2) Within 400 feet A=airfield, S=aviation support, I=industrial, E=educational, P=public/recreational, G=agriculture. V=vacant, M=other military

Chapter 2 Property Disposal and Reuse Plan

2.1 Status of the Conversion Planning Process

Planning for base closure began after October 1991 when a Notice of Intent to prepare a Disposal and Reuse Environmental Impact Statement (EIS) was published in the Federal Register. A public scoping meeting was held in November 1991 to identify environmental issues and concerns for the EIS effort. Development of the EIS began in mid-April 1993 and the Draft EIS public meeting was held 23 March 1994 to solicit public comment. The Kansas City Aviation Department prepared a Base Comprehensive Reuse Plan dated September 1994. The National Environmental Policy Act Record of Decision for the EIS is scheduled to be signed in April 1995.

Below is the draft disposition method for each Reuse Parcel that will be documented in the Disposal Plan. Figure 2-1 shows the reuse parcels. Table 2-1 summarizes these parcels and presents the projected date the parcel will be ready for ready for transfer from the environmental perspective.

KCAD INPUT

Table 2-1 Reuse Parcel Data Summary

Parcel	Acres	Reuse Priority	Current Use and Proposed Reuse	Known Environmental Issues	Transfer Mechanism	Recipient
A	85.03	2	Avation Support	ACM, 3 IRP sites, USTs, 3 AOIs	Public Benefit Transfer	KCAD
B	72 77	2	Light Industrial	ACM, 1 IRP site, Spills, PCBs, USTs, Stormwater	Public Benefit Transfer	KCAD
B-1	10.28		USMC	ACM, 1 IRP site	DoD Inhouse Transfer	USMC
C	0.66		Light Industrial	ACM	Public Benefit Transfer	KCAD
D	1.20		USMC Armory	ACM	DoD Inhouse Transfer	USMC
E	12.40		Light Instustrial	ACM, Historical Site	Public Benefit Transfer	KCAD
E-1	23.79		USMC	1 AOI	DoD Inhouse Transfer	USMC
F	2.65		Aviation Support	1 AOI	Public Benefit Transfer	KCAD
G	2.37		Aviation Support	1 IRP site	Public Benefit Transfer	KCAD
H	2 29		Aviation Support	1 AOI	Public Benefit Transfer	KCAD
I	13 18		Billeting and Officers Club	ACM	DoD Inhouse Transfer	USMC
J	1 03		Aviation Support	ACM	Public Benefit Transfer	KCAD
K	2 86		Housing Development	1 AOI	Negotiated Sale	City of Belton
L	9.44		Housing Development	UXO anomolies	Negotiated Sale	City of Belton
M	183 65		Military Training	1 IRP site	DoD Inhouse Transfer	Army Reserve
N	0 0		Navigational Aids	None	Public Benefit Transfer	KCAD
O	4 63		USMC Storage	1 IRP site	DoD Inhouse Transfer	USMC

Decisions to dispose of utilities, storm water collection systems, sanitary sewers, steam distribution, phone line distribution and electricity are in progress and refinements are being accomplished

An environmental condition of property map has been developed by the Air Force (see Figure 3-2) using data not yet reviewed by the BRAC Cleanup Team A transferrable property map has been developed by the BRAC Cleanup Team (see Figure 3-3) using fully evaluated data The environmental condition of each parcel is further described within the Basewide Environmental

Baseline Survey and other reports or correspondence. Refer to Chapter 3 for a summary on the environmental condition of each parcel.

2.2 Relationship to Environmental Programs

The requirements for the transfer of federal property necessitating compliance with CERCLA §120(h)(3)(B)(i) as amended by the Community Environmental Response Facilitation Act (CERFA) and the possibility of residual contamination must be factored into the property conversion and reuse process. The disposal and reuse activities at Operating Location Q are underway with the understanding that residual contamination may remain on certain properties after the remedial solution is complete, and this situation may restrict future land use for an undetermined amount of time. The requirements set forth in CERCLA §120(h)(3)(B)(i) and CERFA will be followed.

CERCLA §120(h)(3)(B)(i) also requires deeds for federal transfer of previously contaminated property to contain a covenant stating that all remedial actions necessary to protect human health and the environment have been taken. This deed requirement applies only to property on which a hazardous substance was stored for 1 year or more, or a hazardous substance is known to have been disposed of or released with an uneffective response. This means that any required remedial action must be selected and implemented for such contaminated properties before transfer to private parties can occur. In accomplishing this, an operating policy developed by the Air Force is used to determine the suitability to transfer specific property parcels. This Air Force policy applies to all property at closing installations.

The BRAC Cleanup Team has developed an environmental condition of property map (see Figure 3-3) to delineate areas on base that are suitable for transfer and those that are not.

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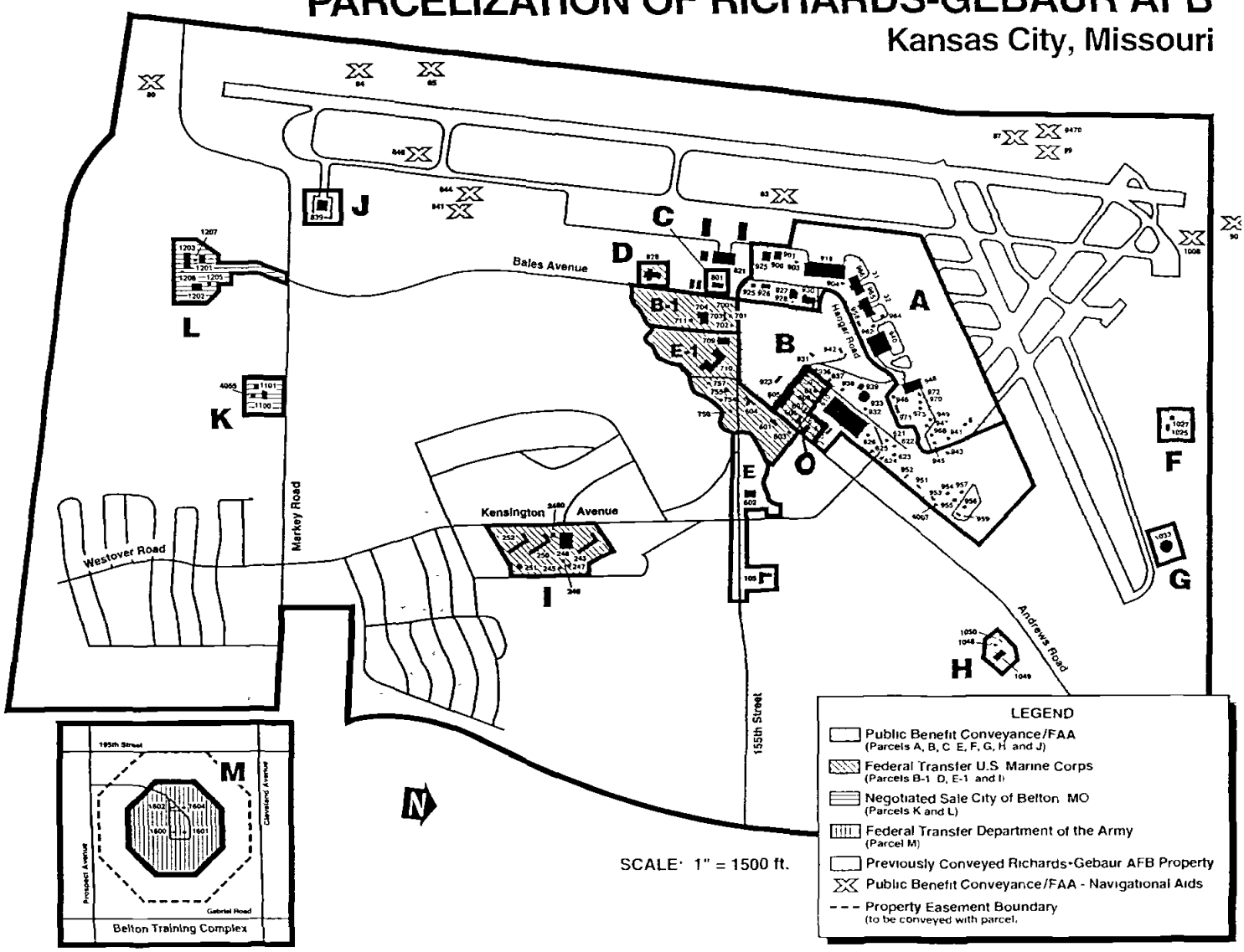
PARCELIZATION OF RICHARDS-GEBAUR AFB

Kansas City, Missouri



2-1

2.3 Property Transfer Methods

The methods of property transfer that will be employed at this military installation are Federal-to-Federal Transfer, Public Benefit Conveyance, and Negotiated Sale.

2.3.1 Federal-to-Federal Transfer of Property

The U.S. Marine Corps will be the recipient of Reuse Parcels B-1, D, E-1, I, and O, which total an estimated 53.08 acres. The U.S. Army will be transferred Reuse Parcel M, which is 183.65 acres in size. A grand total of 236.73 acres will be transferred to other federal agencies.

2.3.2 No-Cost Public Benefit Conveyance

Kansas City Aviation Department will be the recipient of Reuse Parcels A, B, C, E, F, G, H, J and navigational aids, which totals an estimated 179.20 acres.

2.3.3 Negotiated Sale

The City of Belton will be the recipient of Reuse Parcels L and K which totals 12.30 acres.

2.3.4 Widening of Public Highways

No property will be transferred in this manner.

2.3.5 Donated Property

No property will be transferred in this manner.

2.3.6 Interim Leases or Permits

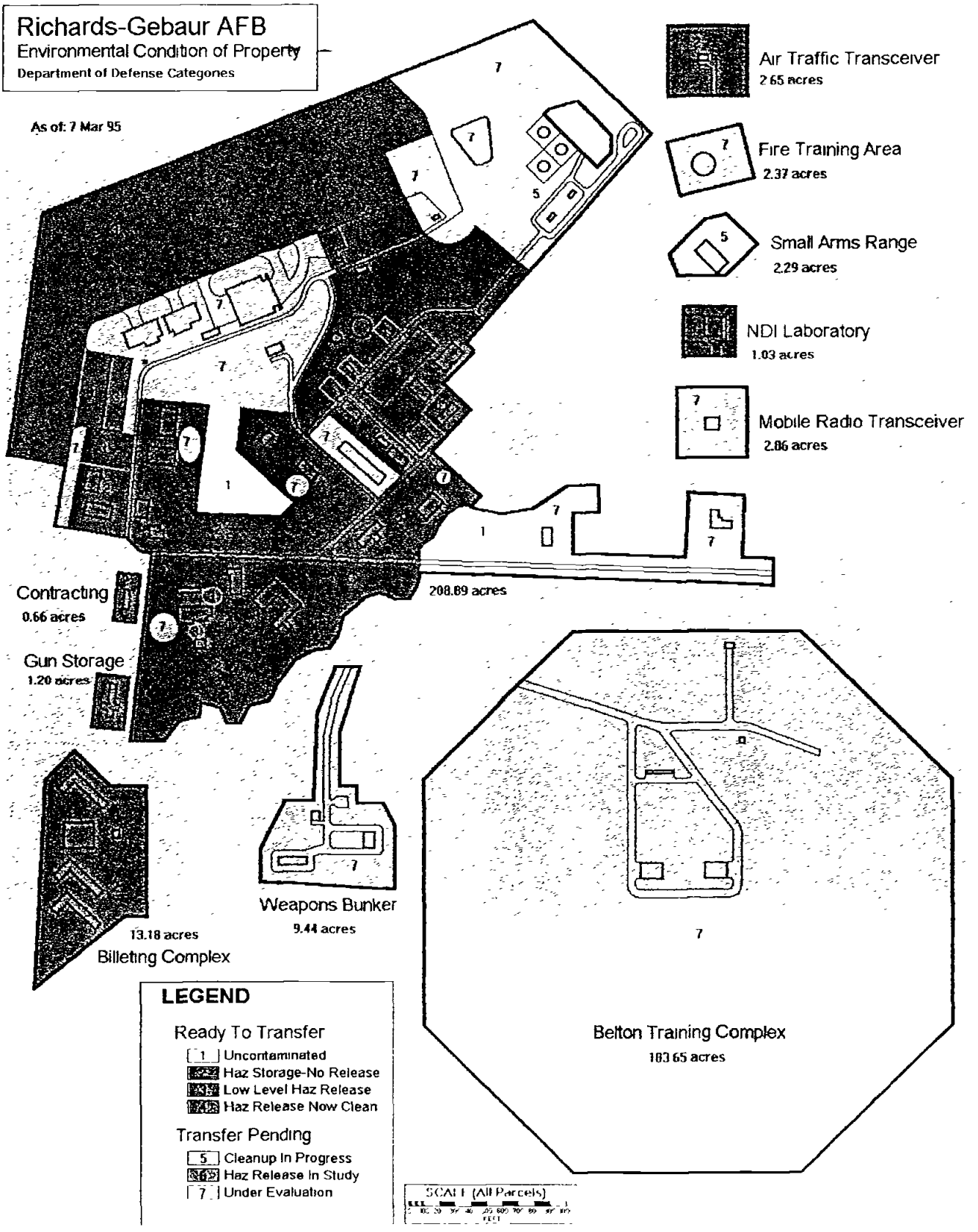
Several interim leases or permits have been issued and are tabulated in Table 2-2 below.

Table 2-2 Agreements/Permits/Interim Leases

Recipient	Building No./Areas	Term of Agreement	Reuse Parcel
Kansas City Aviation Department	900, 901, 1025	1 year-renewable	A, F
Kansas City Aviation Department	619	1 year-renewable	O
Kansas City Aviation Department	610	Proposed	B
Kansas City Aviation Department	918	Proposed	A
Kansas City Aviation Department	839	Proposed	J
US Marine Corp	605-609, 614, 619	Not Available	O
US Marine Corp	700 area, 601-604, 200 area, 828	1 year-renewable permit	B-1, D E-1, I
US Army Reserve	1600-1605	1 year-renewable permit	M

2.3.7 Competitive Public Sale

No property will be transferred in this manner


Richards-Gebaur AFB
Environmental Condition of Property
Department of Defense Categories
As of: 7 Mar 95
Air Traffic Transceiver
2.65 acres
Fire Training Area
2.37 acres
Small Arms Range
2.29 acres
NDI Laboratory
1.03 acres
Mobile Radio Transceiver
2.86 acres
208.89 acres
Contracting
0.66 acres
Gun Storage
1.20 acres
Weapons Bunker
9.44 acres
13.18 acres
Billeting Complex
7
Belton Training Complex
183.65 acres
LEGEND
Ready To Transfer
1 Uncontaminated
Haz Storage-No Release
Low Level Haz Release
Haz Release Now Clean
Transfer Pending
5 Cleanup In Progress
Haz Release In Study
7 Under Evaluation
SCALE (All Parcels)

SE DeD

Information Package on Lead-based Paint at Operating Location Q, Air Force Base Conversion Agency.

Attached:

- Pro-Act Fact Sheet which summarizes Air Force Policy on Lead-based Paint
- Department of Defense Policy on Lead-based Paint
- Air Force Policy on Lead-based Paint
- Air Force Conversion Agency Policy on Lead-based Paint

The Air Force Base Conversion Agency is concerned about the exposure of children to lead-based paint, and has taken the correct steps to identify if this hazard is present. Since there is no "target housing" on the former Richards-Gebaur AFB property and the Reuse Authority has no plans to reuse any of the buildings for housing, the position of the Air Force Base Conversion Agency is that no action is required.

PRO-ACT FACT SHEET

Air Force Policy on Lead-Based Paint

Background

Congress has directed the Department of Defense (DOD) to ensure that military dependent children are not affected by lead-based paint (LBP) health problems. On October 28, 1992, President Bush signed Public Law 102-550, Title X, the Residential Lead-Based Paint Hazard Reduction Act of 1992 (Title X) into effect. Title X provides for LBP hazard reduction, worker protection, reports and research and development. This fact sheet explains only the portions of Title X that pertain to the U.S. Air Force (Air Force) and then explains the Air Force policy on LBP hazard reduction.

Health Effects of Lead

Low-level lead poisoning may afflict as many as 3 million American children under age 6. Lead poisoning in children causes intelligence deficiencies, reading and learning disabilities, impaired hearing, reduced attention span, hyperactivity and behavior problems. LBP can be a significant source of exposure to lead Children are at a greater risk than adults because of their lower body weight and developing nervous system. Also, children are more likely to ingest paint chips, dust and soil that may contain lead. Title X is designed to safeguard the public from LBP health threats by calling for the abatement of LBP or by taking interim measures to prevent LBP deterioration and by limiting children's exposure to lead dust and chips

Where LBP is Found

It is estimated that American homes constructed before 1980 may contain over 3 million tons of lead in the form of LBP LBP is most likely to be found in industrial facilities, on steel structures such as water tanks and pipelines, in yellow painted pavement markings and in non-industrial facilities constructed before 1980. Painted ferrous metal surfaces in nonindustrial facilities constructed during or after 1980 are also likely to contain LBP.

Title X, Subtitle A: LBP Hazard Reduction

Beginning on January 1, 1995, Subtitle A requires:

- Inspection and abatement of LBP hazards in all federally-owned target housing constructed before 1960, including military family housing (MFH);
- Inspection for the presence of LBP in all federally-owned target housing constructed between 1960 and 1978;
- Periodic LBP risk assessments and interim controls for federally-owned target housing constructed between 1960 and 1978,
- Inspection for the presence of LBP in target housing prior to federally-funded renovation or rehabilitation that is likely to disturb painted surfaces
- Reduction and abatement of LBP hazards in the course of federally-funded target housing rehabilitation projects; and
- Where risk assessment, inspection or reduction of LBP has been undertaken at federally-owned target housing, occupants must be notified of the nature and scope of such activities and the findings of the actual risk assessment or inspection reports must be made available to them

The above requirements can be waived if a risk assessment performed by a certified contractor has determined that no LBP hazards are present.

Air Force LBP Policy

Air Force installations will take the following actions to comply with Title X, Subtitle A:

✓ *Identify, evaluate, control and eliminate existing LBP hazards. Priority will be given to facilities or portions of facilities which are frequented by children under age 7 and areas in those facilities which contain painted surfaces in deteriorated condition In-place management will be considered first to reduce the risk of hazardous exposure to acceptable levels Abatement will be performed when in-place management will not control the hazard effectively or when it is cost-effective during normal facility renovation and upgrade programs*

✓ *Protect facility occupants, especially children, and workers from existing LBP hazards, ensure facility oc*

cupants are removed from a hazard area and determine blood lead levels as soon as children under age 7 are exposed to LBP. Perform investigations when children with elevated blood lead levels are identified and determine the source of lead and remedial actions.

✓ *Prevent LBP hazards from developing. Precautions will be taken when disturbing LBP and when maintenance, repair, modification and renovation activities disturb painted surfaces in priority facilities and other facilities likely to contain LBP.*

✓ *Restrct use of LBP. Paints or coatings containing lead above the regulated amount specified for non-industrial facilities will not be specified, purchased, used or approved for use on Air Force installations*

✓ *Identify, evaluate and remediate past LBP hazards Presence of LBP on facilities and the potential for LBP debris to have accumulated in the area surrounding facilities will be determined.*

Title X, Subtitle B: Lead Exposure Reduction

Subtitle B, which goes into effect 60 days after the implementation date of June 3, 1993, requires:

- Contractor training and certification for all LBP activities. This is provided by adding Title IV, Lead Exposure Reduction, to the Toxic Substances Control Act (TSCA); and
- All risk assessments, inspections and abatement activities performed in target housing to be performed by certified contractors.

Air Force LBP Policy

To comply with Title X, Subtitle B, Air Force installations will:

✓ *Comply with environmental protection regulations*

✓ *Evaluate LBP debris in accordance with RCRA and comply with transportation, treatment, storage and disposal requirements*

✓ *Comply with CERCLA requirements if a reportable amount of hazardous debris is released*

✓ *Comply with TSCA requirements for LBP activities*

✓ *Ensure ambient air quality standards are not violated*

Further Policy Questions

Any questions regarding Air Force policy on LBP that cannot be resolved at the installation or MAJCOM level should be directed to

HQ AFMOA/SGPA
DSN 297-1736

or to

HQ AFCESA/ENE
DSN 523-6359

Glossary of Pertinent Terms

Abatement: Set of measures designed to permanently eliminate LBP hazards in accordance with standards established by appropriate Federal agencies. The term includes

- the removal of LBP and lead-contaminated dust, the permanent containment or encapsulation of LBP, the replacement of lead-painted surfaces or fixtures and the removal or covering of lead-contaminated soil; and,
- all preparation, cleanup, disposal and postabatement clearance testing activities associated with such measures.

Accessible Surface: An interior or exterior surface painted with LBP that is accessible for a child to mouth or chew.

Certified Contractor:

(A) A contractor, inspector or supervisor who has completed a training program certified by the appropriate Federal agency and has met any other requirements for certification of licensure established by such agency or who has been certified by any state through a program which has been found by such Federal agency to be at least as rigorous as the Federal certification program.

(B) Workers or designers who have fully met training requirements established by the appropriate Federal agency.

Deteriorated LBP: LBP that is flaking, peeling, chipping or cracking.

Evaluation: Encompasses the terms risk assessment and inspection.

Friction Surface: An interior or exterior surface that is subject to abrasion or fnction, including window, floor and stair surfaces.

High-Priority Facilities: Facilities or portions of facilities which are or may be used by children under age 7, prioritized as follows: child development centers, annexes and playground equipment; on-base Air Force licensed family day care homes; youth centers, recreational facilities and playgrounds; waiting areas in medical and dental treatment centers, Air Force-maintained DOD schools; MFH currently occupied by families with children under age 7, and, all remaining MFH

Impact Surface: An interior or exterior surface that is subject to damage by repeated impacts (e.g , certain parts of door frames)

In-Place Management: Interim measures which reduce an LBP hazard to acceptable levels. These interim measures include monitoring the condition of painted surfaces and reducing/eliminating LBP dust by high phosphate detergent washing, top coating all surfaces, repairing deterioration, high-efficiency particle air (HEPA) vacuuming, disposing of contaminated carpeting and decontaminating upholstered furniture to the maximum extent possible In-place management also includes establishing and operating resident and management education programs

Inspection. A surface-by surface investigation to determine the presence of LBP

Interim Controls: A set of measures designed to temporarily reduce human exposure or likely exposure to LBP hazards, including specialized cleaning, repairs, maintenance, painting, temporary containment, ongoing monitoring of LBP hazards and the establishment and operation of management and resident education programs.

Lead-Based Paint (LBP): Paint or other surface coatings that contain lead in excess of limits established under Section 302(c) of the Lead-Based Paint Poisoning Prevention Act.

LBP Activities: Identification of LBP and materials containing LBP, deleading, removal of lead and demolition.

LBP Deterioration: Any degradation of LBP that produces dust, paint chips, chalking, peeling, flaking, blistering or loose paint.

LBP Hazard: Any condition that causes exposure to lead from lead-contaminated dust, lead-contaminated soil, lead-contaminated paint that is deteriorated or present in accessible surfaces, friction surfaces or impact surfaces that would result in adverse human health effects.

LBP Hazard Determination: Until EPA finalizes applicable regulations, specific determination of actual LBP hazard must be made by Base Bioenvironmental Engineering in consultation with Base Civil Engineering. LBP generally results in adverse human health effects and is considered to be hazardous under the following conditions.

- children under age seven chew or mouth painted surfaces or are exposed to LBP dust, soil contaminated with lead or LBP in a deteriorated condition (e.g., peeling, flaking or cracking).
- repeated or prolonged exposure of other facility occupants or worker to airborne LBP dust

Lead-Contaminated Dust: Surface dust in residential dwellings that contains an area or mass concentration of lead in excess of levels determined by the appropriate Federal agency to pose a threat of adverse health effects in pregnant women or young children.

Lead-Contaminated Soil: Bare soil on residential property that contains lead at or in excess of the levels determined to be hazardous to human health by the appropriate Federal agency

Reduction: Measures designed to reduce or eliminate human exposure to LBP hazards through methods including interim controls and abatement

Risk Assessment: An on-site investigation to determine and report the existence, nature, severity and location of LBP hazards in residential dwellings including

- information gathering regarding the age and history of the housing and occupancy by children under age 6,
- visual inspection,
- limited wipe sampling or other environmental sampling techniques,
- other activity, as appropriate, and
- provision of a report explaining the results of the investigation

Target Housing: Any housing constructed prior to 1978, except housing for the elderly or persons with disabilities (unless any child who is less than 6 years of age resides or is expected to reside in such housing for the elderly or persons with disabilities) or any 0 bedroom dwelling

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DOD POLICY ON LEAD-BASED PAINT AT BASE REALIGNMENT AND CLOSURE PROPERTIES

Department of Defense (DoD) policy with regard to lead-based paint (LBP) is to manage LBP in a manner protective of human health and the environment, and to comply with all applicable Federal, State, and local laws and regulations governing LBP hazards. The Federal requirements for residential structures/dwellings with LBP on Base Realignment and Closure (BRAC) properties differ, depending on: (1) the date of property transfer; and (2) the date of construction of the residential housing being transferred.

DoD policy is to manage LBP at BRAC installations in accordance with either 24 CFR 35 or P.L. 102-550, at the Service's discretion, until January 1, 1995; and, thereafter, solely in accordance with P.L. 102-550. Residential structures/dwellings are as defined in the applicable regulation and any regulation issued pursuant thereto. The Military Components may apply this policy to any other structures they deem appropriate.

On January 1, 1995, and thereafter, the provisions of the Residential Lead-Based Paint Hazard Reduction Act of 1992 (Title X of P.L. 102-550) concerning the transfer of Federal property for residential use take effect. These provisions, codified at (in pertinent part) 42 U.S.C. 4822, 4851-4856, and 15 U.S.C. 2688, are applicable to target housing, which is housing constructed prior to 1978, with limited exceptions for housing for the elderly or persons with disabilities or any 0-bedroom dwelling.

Target housing constructed after 1960 and before 1978 must be inspected for LBP and LBP hazards. The results of the inspection must be provided to prospective purchasers or transferees of BRAC property, identifying the presence of LBP and LBP hazards on a surface-by-surface basis. There is no Federal LBP hazard abatement requirement for such property. In addition, prospective transferees must be provided a lead hazard information pamphlet and the contract for sale or lease must include a lead warning statement.

Target housing constructed before 1960 must be inspected for LBP and LBP hazards, and such hazards must be abated. The results of the LBP inspection will be provided to prospective purchasers or transferees of BRAC property identifying the presence of LBP and LBP hazards on a surface-by-surface basis and a description of the abatement measures taken. In addition, prospective transferees must be provided with a lead hazard information pamphlet and the contract for transfer must include a lead warning statement.

The inspection and abatement discussed above will not be required when the building is scheduled for demolition by the transferee and the transfer document prohibits occupation of the building prior to the demolition, the building is scheduled for non-residential use, or, if the

building is scheduled for residential use, the transferee conducts renovation consistent with the regulatory requirements for the abatement of LPB hazards.

Effective January 1, 1995, DoD BRAC properties shall be transferred in accordance with any regulations implementing the Residential Lead-Based Paint Hazard Reduction Act of 1992. The Act also made Federal agencies subject to all Federal, State, interstate, and local substantive and procedural requirements respecting LBP and LBP hazards (see 15 U.S.C. 2688). Therefore, there may be more stringent local requirements applicable to Federal property transfers.

AIR FORCE POLICY
ON
LEAD-BASED PAINT IN FACILITIES

1. References.

a. House of Representatives Report 102-95, Fiscal Year 1992 Department of Defense (DoD) Appropriations Act.

b. 16 C.F.R. 1303, Ban of Lead-Containing Paint and Certain Consumer Products Bearing Lead-Containing Paint, implementing the Consumer Product Safety Act of 1977.

c. 24 C.F.R., Part 35, Lead-Based Paint Poisoning Prevention in Certain Residential Structures.

d. Title 42 U.S.C., Section 4822, as amended, Lead-Based Paint Poisoning Prevention Act (LBPPPA) of 1971.

e. Federal Register, 18 April 1990, Vol. 55, No. 75, Department of Housing and Urban Development, Lead-Based Paint: Interim Guidelines for Hazard Identification and Abatement in Public and Indian Housing, as amended, September 1990.

f. 29 C.F.R. 1926, Safety and Health Regulations for Construction.

g. 29 C.F.R. 1910.1025, Occupational Safety and Health Standards, Lead.

h. 40 C.F.R. 50.12, National Primary and Secondary Ambient Air Quality Standards for Lead.

i. 40 C.F.R. 240 through 280, implementing the Resource Conservation and Recovery Act (RCRA).

j. 40 C.F.R. 302, implementing the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

k. DoD Directive (DoDD) 6050.16, DoD Policy for Establishing and Implementing Environmental Standards at Overseas Installations.

l. P.L. 102-550, Title X, Residential Lead-Based Paint Hazard Reduction Act of 1992.

m. 15 U.S.C. 2601 et seq., The Toxic Substances Control Act (TSCA).

2. Application.

a. This policy applies to all Air Force, Air National Guard, and Air Force Reserve active installations and facilities, including overseas locations.

b. Compliance with applicable federal, state, interstate, and local laws and regulations for LBP activities, environmental protection, and occupational health and safety is required. Refer to the attached guidance for procedures and practices needed to implement this policy.

3. Background. Ingestion of lead or lead dust can cause a variety of adverse health effects in children and adults. Lead pigments in paint applied to facilities can be a source of hazardous exposure to lead. Children are at greater risk due to their lower body weight, developing nervous system, and greater tendency to ingest paint chips and dust. Based on common painting practices and legal restrictions, LBP is likely to be found in all industrial facilities, on all steel structures (water tanks, pipelines, etc), in yellow painted pavement markings, and in nonindustrial facilities constructed prior to 1980. Painted ferrous metal surfaces in nonindustrial facilities constructed during or after 1980 are also likely to contain LBP.

4. Legislation and Regulations. Congress directed the Department of Defense (DoD) to take a more active role in ensuring military dependent children are not affected by LBP health hazards (reference 1a.). Prior legislation restricted lead in paint used in nonindustrial facilities effective in 1978 (reference 1b) and in residential structures constructed and rehabilitated by federal agencies (reference 1c). The LBPPPA and associated guidelines took steps to eliminate LBP in Public and Indian Housing (references 1d and 1e). Occupational Safety and Health Administration regulations specify worker protection requirements in the construction and general industry (references 1f and 1g), and environmental regulations address restrictions on emissions (reference 1h) and when LBP debris must be controlled as a hazardous waste (references 1i and 1j). The LBPPPA and TSCA were amended and a program established to evaluate and reduce LBP in housing (references 1l and 1m).

5. Terms Explained.

a. LBP Hazard Determination. A specific determination made by Base Bioenvironmental Engineering in consultation with Base Civil Engineering. A hazardous situation generally exists if children under age seven are chewing on painted surfaces or are exposed to LBP dust, soil contaminated with lead or deteriorated LBP (i.e., flaking, peeling, chipping, or cracking), or if other occupants or workers are subjected to prolonged or repeated exposure to airborne LBP dust.

b. In-Place Management. Interim measures which reduce an LBP hazard to acceptable levels. They include monitoring the condition of painted surfaces and reducing dust by high-phosphate detergent washing or top coating by painting or wall coverings, repairing deterioration by painting, and performing

cleanup activities such as high-efficiency particle air (HEPA) vacuuming, disposing of contaminated carpeting, and decontaminating upholstered furniture to the maximum extent possible and the establishment and operation of resident and management education programs.

c. Abatement. Long-term or permanent measures which eliminate the possibility of hazardous exposure by replacement of building components (doors, cabinets, molding, etc), encapsulation with drywall or siding, and removal (reference 1d). May be applied throughout a facility or in selected areas only.

6. Actions To Be Taken. Air Force installations will:

a. Identify, evaluate, control, and eliminate existing LBP hazards. Give priority to facilities or portions of facilities which are frequented by children under age seven and areas in those facilities which contain painted surfaces in deteriorated condition. Consider using in-place management first to reduce the risk of hazardous exposure to acceptable levels. Perform abatement when in-place management will not control the hazard effectively or when it is cost-effective during normal facility renovation and upgrade programs.

b. Protect facility occupants, especially children, and workers from existing LBP hazards. Ensure facility occupants are removed from a hazard area and blood lead level determinations are performed as soon as possible on children under seven who have been exposed. Perform investigations when children with elevated blood lead levels are identified and determine the source of lead and remedial actions.

c. Prevent LBP hazards from developing. Take precautions when disturbing LBP and when maintenance, repair, modification, and renovation activities disturb painted surfaces in priority facilities and other facilities likely to contain LBP.

d. Restrict Use of LBP. Do not specify, purchase, use, or approve for use on any existing or proposed industrial or non-industrial facility paints or coatings containing lead above the regulated amount specified for nonindustrial facilities.

e. Comply with Environmental Protection Regulations. Evaluate LBP debris in accordance with RCRA and comply with transportation, treatment, storage, and disposal requirements. Comply with CERCLA requirements if a reportable amount of hazardous debris is released. Comply with TSCA requirements for LBP activities. Ensure ambient air quality standards are not violated.

f. Identify, evaluate, and remediate past LBP hazards. Determine the use of LBP on facilities and the potential for LBP debris to have accumulated in the area surrounding facilities.

7. Responsibilities. The following functional area responsibilities are assigned to implement this policy.

a. Civil Engineering (AF/CE): Ensures that facilities are inspected on a prioritized basis for deteriorated painted surfaces, appropriate in-place management and abatement are performed, and occupant relocation actions are taken when an LBP hazard determination is made. Ensures that precautions for occupant, worker, and environmental protection requirements for proper disposal of LBP debris and restrictions on lead in paints are included in all maintenance, repair, modification, renovation, and construction activities performed in-house or by contract or self-help. Ensures all lead-paint activities are performed by workers or designers certified by the appropriate agency. Plans for abatement of LBP when cost-effective during facility renovation and upgrade programs.

b. Medical Services (AFMOA/SG): Ensures that facilities are evaluated for LBP hazards on a prioritized basis and appropriate LBP hazard determinations are made. Ensures that investigations to determine the sources of elevated blood lead levels are performed. Provides consultation on and supports all activities which disturb or may disturb LBP including maintenance, repair, modification, renovation, in-place management, and abatement. Provides lead exposure prevention education to occupants of military family housing, facility managers, and other appropriate personnel.

c. Logistics (AF/LG): Ensures paints with lead above the regulated amount are not issued for use in any facility.

d. Other Functional Areas (AF/JA, SAF/PA, AF/MW): Ensure consultative services and other necessary support are provided to AF/CE and AF/SG for activities involving LBP.

8. Funding. Each Air Force organization will program and budget for their requirements using the applicable appropriations: Operations and Maintenance; Military Construction; Military Family Housing (MFH); Research, Development, Test and Evaluation; Defense Environmental Restoration Account; Medical; and other base tenant funding.

a. Table 1 and accompanying notes cite Element of Expense Investment Codes (EEICs) and Program Element Codes (PECs) used for the major activity categories outlined in this policy. These codes provide a mechanism to identify requirements in the budget advocacy process and capture expenditures during program execution.

b. In addition, installations must track in-house costs for all LBP activities. Each installation will assign at least three work orders, and others as applicable, for LBP activities:

O&M General Base Facilities		RDT&E General Base Facilities
O&M Environmental	OR	RDT&E Environmental
MFH		MFH

(1) In-house costs to capture in these work orders include site visits, inspections, management, in-place controls, removal, and disposal. Also include all documentation, record keeping, special training, documentation of training, base awareness programs, environmental controls, and disposal documentation costs associated with LBP. Supplies, travel and the costs of moving out of LBP contaminated facilities into "clean" ones must also be collected.

(2) To ease recognition, the first two characters used in the description of these work orders should be "LB."

c. Major commands will separately identify LBP activities in their financial plans and provide full justification. The annual budget call letter from Air Staff will provide detailed instructions.

TABLE 1: FUNDING FOR LEAD-BASED PAINT REQUIREMENTS

Categories	Civil Engineering	Medical
FACILITY INSPECTION	X	
HAZARD EVALUATION		X
ABATEMENT/IN-PLACE MANAGEMENT	X	
DISPOSAL	X	
TRAINING/CERTIFICATION	X	X
CLEANUP UNDER THE DEFENSE ENVIRONMENTAL RESTORATION ACCOUNT (DERA)	X	

NOTES:

1) Element of Expense Investment Codes (EEICs) for LBP requirements will follow the standard Air Force three digit EEICs in accordance with AFR 700-20. The LBP sub-shred (suffix) will be added as follows and will apply within all PECs:

EEIC	
XXX41	LBP activities, DERA funded
XXX75	LBP activities, not DERA funded (for all EEICs except 534)
53476	LBP activities, not DERA funded (EEIC 534 only)

2) Program Element Codes (PECs) applicable to LBP requirements are as follows:

a) Costs for LBP activities associated with work or projects primarily justified for non-environmental reasons (renovation, upgrade, disposal, maintenance, repair, construction, etc) are not eligible for environmental compliance

funding. This work should be programmed and costed to the PEC for which the work is primarily justified. For work in this category, all the project costs, including LBP costs, must be within statutory and other approval limits.

b) The PEC for civil engineering environmental compliance requirements (other than MFH) is *****56F. This PEC will be restricted to those projects justified by the need to comply with environmental laws. Note, all civil engineering work categories listed in Table 1 are potentially eligible for environmental compliance funding (except for cleanup under DERA). The eligibility of environmental compliance funding will be updated as EPA promulgates its regulations.

c) MFH environmental compliance funding is tracked by EEIC under the following PECs (note civil engineering work in the Table 1 categories could fall into any of these PECs):

0808741F	Construction
0808742F	Improvements
0808744F	Leasing
0808745F	Operations
0808746F	Maintenance

d) The PEC for medical environmental compliance requirements is 0807756F. Both categories listed as medical in Table 1 are eligible for this funding code.

e) The PEC for DERA is 0708008F. If contamination is determined to have been caused by past practices and contamination is found to be above the maximum contaminant levels (MCLs), the funding of the cleanup may be eligible from the DERA account. Contact your Installation Restoration Program Manager for specific details, and note that all programming of funds for this account must be submitted to the Installation Restoration Program Manager.

AIR FORCE GUIDANCE ON LEAD-BASED PAINT IN FACILITIES

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AIR FORCE GUIDANCE ON LEAD-BASED PAINT IN FACILITIES

INTRODUCTION

1. References.

a. 16 C.F.R. 1303, Ban of Lead-Containing Paint and Certain Consumer Products Bearing Lead-Containing Paint, implementing the Consumer Product Safety Act of 1977.

b. 24 C.F.R., Part 35, Lead-Based Paint Poisoning Prevention in Certain Residential Structures.

c. Title 42 U.S.C., Section 4822, as amended, Lead-Based Paint Poisoning Prevention Act (LBPPPA) of 1971.

d. Federal Register, 18 April 1990, Vol. 55, No. 75, Department of Housing and Urban Development (HUD), Lead-Based Paint. Interim Guidelines for Hazard Identification and Abatement in Public and Indian Housing, as amended, September 1990.

e. 29 C.F.R. 1926, Safety and Health Regulations for Construction.

f. 29 C.F.R. 1910.1025, Occupational Safety and Health Standards, Lead.

g. 40 C.F.R. 50.12, National Primary and Secondary Ambient Air Quality Standards for Lead.

h. 40 C.F.R. 240 through 280, implementing the Resource Conservation and Recovery Act (RCRA).

i. 40 C.F.R. 302, implementing the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

j. AFM 85-3, 15 June 1981, Paints and Protective Coatings, Section 1.5, Restrictions on Use of Lead-Based Paints.

k. P.L. 102-550, Title X, Residential Lead-Based Paint Hazard Reduction Act of 1992.

l. 15 U.S.C. 2601 et seq., The Toxic Substances Control Act (TSCA).

2. Purpose. Provides guidance needed to implement and execute the Air Force policy to protect facility occupants and workers who perform maintenance, repair, modification, and renovation activities from hazardous exposure to lead in lead-based paints (LBP).

3. Background.

a. Ingestion of paint chips or dust containing lead can cause adverse health effects in children and adults. Lead compounds in paint applied to facilities can be a source of hazardous exposure to lead for military and civilian employees, their families, and contractors performing work in facilities. Children are at greater risk of lead poisoning due to their lower body weight, developing nervous system, and greater tendency to ingest paint chips/dust.

b. The Consumer Products Safety Act (reference 1a), restricted the amount of lead in paints manufactured after 27 February 1978 for sale directly to consumers and in paints to be used in residences, schools, hospitals, parks, playgrounds, public buildings, and other areas where consumers have direct access to painted surfaces (nonindustrial facilities). Lead in paints used in industrial facilities was and is not restricted by federal law. Allowing two more years for stocks to be depleted, it is reasonable to make some assumptions concerning the use of LBP in facilities using 1980 as a transition year.

c. Certain types of paint applied before 1980 are more likely to contain lead. These are oil-based paints used in industrial facilities, on steel structures (water towers, pipelines, etc), and in yellow airfield and roadway pavement markings. They have excellent sealing (stain resistance) and anticorrosion properties and are very durable and resistant to ultraviolet light in sunlight. They were also applied primarily to kitchens, bathrooms, and interior and exterior wood trim in residences. Latex paint for architectural use, which normally does not contain lead, became popular after 1960, and nearly all paint applied after 1980 to the interior and exterior of houses and nonindustrial buildings was latex paint. This was reinforced by the Consumer Product Safety Act. However, because of their desirable properties and lack of federal regulation, LBP continued to be used in industrial facilities, on steel structures, and for pavement markings. Additionally, due to complex wording of the Consumer Product Safety Act, LBP may also be found in nonindustrial facilities, primarily in primers on ferrous metal surfaces.

4. Legislation and Regulations. As previously stated, the Consumer Product Safety Act restricted lead in paints used in nonindustrial facilities (reference 1a). Part 35 of 24 C.F.R. placed similar restrictions on paints used in residential structures constructed and rehabilitated by federal agencies (reference 1b). The LBPPPA and resulting HUD guidelines took steps to eliminate LBP in Public and Indian Housing (references 1c and 1d). P.L. 102-550 (reference 1k) amends the LBPPPA and TSCA (reference 1l) and requires HUD, EPA, Center for Disease Control, and Department of Labor to develop standards, guidelines, regulations, and training requirements for LBP activities. Occupational Safety and Health Administration (OSHA) regulations

specify worker protection requirements in the construction and general industry (references 1e and 1f), and environmental regulations address restrictions on emissions (reference 1g) and when LBP debris must be controlled as a hazardous waste (references 1h and 1i). These are described in greater detail in paragraphs 10 and 12.

5. Terms Explained.

a. High-Priority Facilities. Facilities or portions of facilities which are or may be frequented/used by children under age seven, which are further prioritized as follows: child development centers, annexes, and playground equipment; on-base Air Force licensed family day care homes; youth centers, recreational facilities, and playgrounds; waiting areas in medical and dental treatment centers; Air Force-maintained Department of Defense (DoD) schools; military family housing (MFH) currently occupied by families with children under age seven; and remaining MFH.

b. Facilities Likely to Contain LBP. LBP is likely to be found in all industrial facilities, on all steel structures (water tanks, pipelines, etc), in yellow painted pavement markings, and in nonindustrial facilities constructed prior to 1980. Painted ferrous metal surfaces in nonindustrial facilities constructed during or after 1980 are also likely to contain LBP.

c. LBP Hazard Determination. P.L. 102-550 defines the term "lead-based paint hazard" as "any condition that causes exposure to lead from lead-contaminated dust, lead-contaminated soil, lead-contaminated paint that is deteriorated or present in accessible surfaces, friction surfaces, or impact surfaces that would result in adverse human health effects as established by the appropriate Federal agency." Until final regulations are promulgated by EPA under this law, a specific determination of actual (versus potential) hazard must be made by Base Bioenvironmental Engineering in consultation with Base Civil Engineering personnel. LBP will generally result in adverse human health effects and is considered to be hazardous under the following conditions:

(a) Children under age seven chewing or mouthing on painted surfaces or when they are exposed to LBP dust, soil contaminated with lead, LBP which is in deteriorated condition (i.e., flaking, peeling, or cracking).

(b) Prolonged or repeated exposure of other facility occupants or workers to airborne LBP dust.

d. In-Place Management. Interim measures which reduce the LBP hazard to acceptable levels. They include monitoring the condition of painted surfaces; reducing or eliminating dust by high phosphate detergent washing or top coating with latex paint or wall coverings; repairing deterioration with latex paint; and

performing cleanup activities such as high-efficiency particle air (HEPA) vacuuming, disposing of contaminated carpeting, and decontaminating upholstered furniture to the maximum extent possible.

e. Abatement. Long-term or permanent measures which eliminate the possibility of hazardous exposure by replacement of building components (doors, cabinets, molding, etc), encapsulation with drywall or siding, and removal (reference 1d). May be applied throughout a facility or in selected areas only.

f. Paint Deterioration. Any degradation of the paint film that produces dust or paint chips such as chalking, peeling, flaking, blistering, or loose paint.

g. Clearance Sampling. The procedure used in high-priority facilities to determine if cleanup activities following maintenance or disturbance of LBP surfaces have been effective in reducing the amount of surface lead dust. Following cleanup activities, lead dust concentrations must not exceed 200 micrograms per square foot (200 ug/ft^2) on floors, 500 ug/ft^2 on window sills, or 800 ug/ft^2 in window wells as determined by wipe sampling performed in accordance with a procedural guidance manual to be provided by Armstrong Laboratory. Facilities with lead dust levels in excess of these limits will be recleaned, sampled, and meet these standards prior to reoccupancy.

PROCEDURES AND PRACTICES

6. Management Plan. Each installation must develop and implement a plan for identifying, evaluating, managing, and abating LBP hazards. The plan should:

a. Include a strategy for (1) identifying, evaluating, controlling, and eliminating existing LBP hazards and preventing new hazards from developing; (2) protecting facility occupants, especially children, and workers from LBP hazards; and (3) ensuring compliance with all applicable environmental protection requirements and all laws and regulations pertaining to LBP activities.

b. Be an integral part of their overall plan for inspecting, constructing, upgrading, repairing, maintaining, and demolishing the facility inventory.

c. Be based on local conditions and an evaluation of the health risk from LBP on base which considers available information on the condition of facilities, the results of facility inspections and evaluations, and incidents of lead toxicity resulting from LBP.

d. Give priority to finding and reducing or eliminating the risk of existing hazardous conditions in high-priority facilities.

e. Emphasize in-place management to control existing hazards and reduce the risk of hazardous exposure to acceptable levels.

f. Consider abatement of LBP as part of the normal facility renovation and upgrade programs when it is cost-effective.

g. Ensure precautions and procedures are incorporated into all maintenance, repair, renovation, and upgrade activities which are performed in-house, by contract, or self-help and which disturb painted surfaces known or likely to contain lead.

7. Identifying and Evaluating Existing and Potential LBP Hazards.

a. Depending on local circumstances, any of the following procedures may be needed to identify and evaluate existing and potential LBP hazards:

(1) Evaluations of observations from routine facility inspections and activities such as MFH walk-throughs, fire and safety inspections, inspections for family day care home licensing, and occupant reports of deteriorated paint.

(2) Inspections and evaluations specifically designed to locate existing and potential LBP hazards so that appropriate measures can be taken to avoid hazardous lead exposures.

(3) Facility investigations to determine the source of documented lead exposures.

b. When determining the number, extent, and schedule for each type of evaluation to be performed, maximum use should be made of available information on the condition of facilities from construction and painting histories, maintenance records, and past routine facility inspections (MFH condition walk-throughs, etc).

c. Routine facility inspections:

(1) Expand the scope of routine facility inspections by instructing appropriate personnel (e.g., facility managers; child and youth facilities managers; MFH, safety, and fire inspectors; planners; designers; O&M work force) to report signs of paint deterioration or children chewing on painted surfaces in high-priority facilities.

(2) Develop procedures to document and respond to information reported from inspections and occupants concerning potential LBP problems and the resulting evaluations and actions.

d. Facility inspections and evaluations specifically designed to locate existing and potential LBP hazards:

(1) These inspections and evaluations should focus on high-priority facilities and areas within those facilities with painted surfaces in deteriorated condition.

(2) The evaluations will be performed by a team consisting of Base Civil Engineering and Base Bioenvironmental Engineering representatives or by a qualified contractor in conjunction with a certified testing laboratory (paragraphs 10 and 13). Data reflecting facility conditions, investigative results, and resulting actions will be collected, consolidated, and analyzed by the Chief, Aerospace Medicine for reporting through Air Force medical channels.

(3) Inspections and evaluations of facilities base wide (base-wide surveys) to characterize the current state of LBP in all facilities are time-consuming and require considerable resources and a sophisticated data management system to manage large amounts of data and information. They are not recommended unless there are compelling reasons to do so.

(4) Incidents of lead toxicity and/or results obtained from routine inspections may provide justification to conduct or not conduct surveys of facilities with similar characteristics.

(5) The number of units and locations within units to be tested as described in Chapter 4 of the HUD guidelines (reference 1d) were developed solely to provide a high degree of confidence that all units would be lead free if all test results did not detect lead-based paint. This level of testing is excessive for other purposes, and testing substantially fewer units and locations within units should be adequate to characterize the extent of the hazard on base or within a facility and to prioritize evaluation and corrective actions.

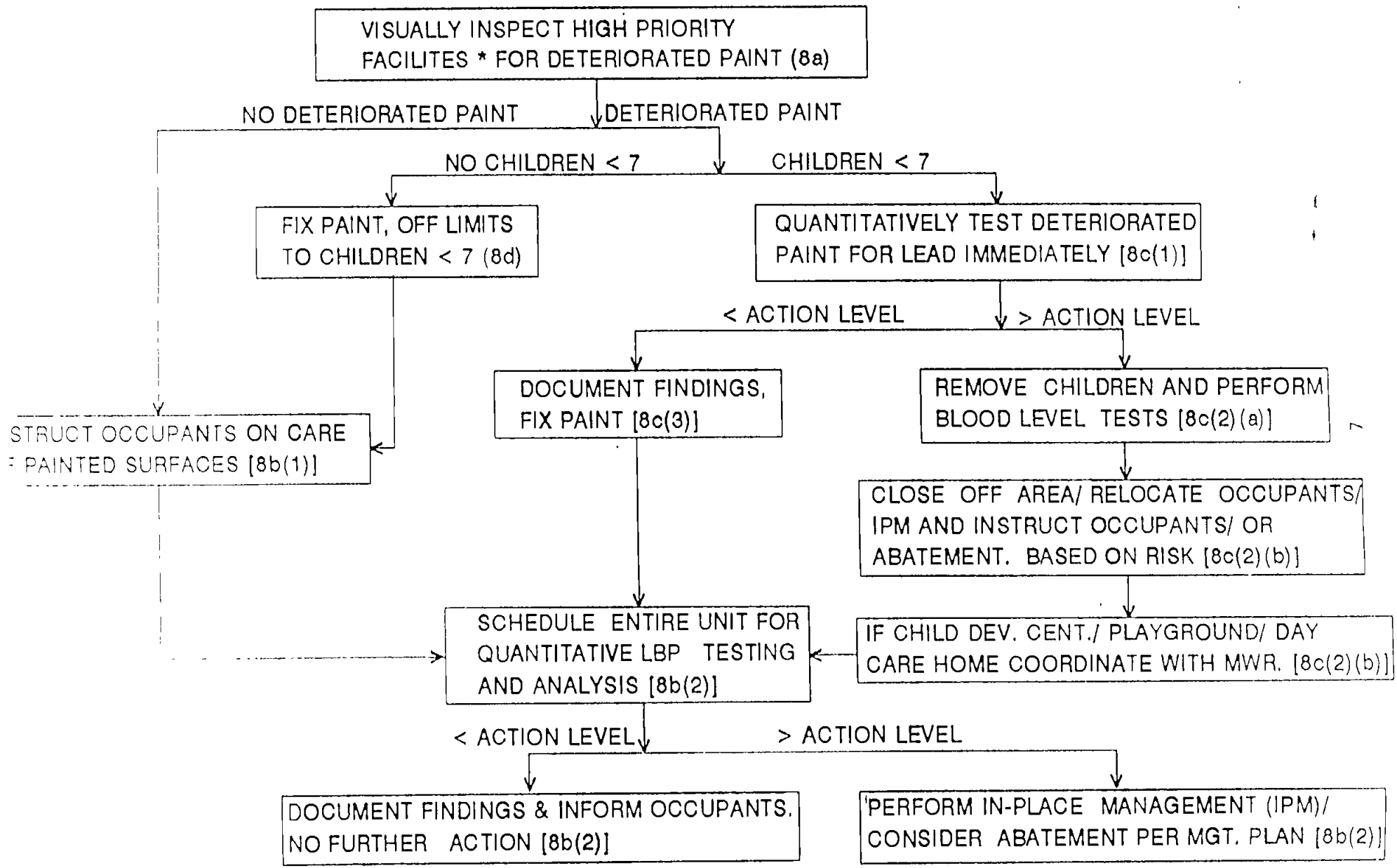
e. Investigations of facilities to determine if LBP is the source of documented lead exposures should follow procedures in paragraph 8 and any additional requirements established by the Lead Toxicity Investigation Team (paragraph 14).

f. When facility evaluations are performed, permanent records must be maintained by Base Civil Engineering and/or Base Bioenvironmental Engineering to document findings and actions in each facility evaluated. The facility jacket should be annotated or the equivalent management procedure followed to show where records are kept. Examples of suggested documents to keep are found in the HUD guidelines (reference 1d). Additional record keeping may be required to support bioenvironmental reporting, lead toxicity investigations, and RCRA requirements.

8. LBP Inspection and Evaluation Procedures. The following are general procedures for inspecting and evaluating interior surfaces of high-priority facilities and actions to take based on the resulting LBP risk assessment. See Figure 1. Exterior surfaces will be evaluated in accordance with procedural guidance provided by Armstrong Laboratory.

a. Evaluate the condition of the painted surfaces for chipping, peeling, cracking, dust and visible signs of paint

RE 1. PROCEDURES FO SPECTING & EVALUAT
HIGH-PRIORITY FACILITIES



HILD DEV. CENTERS, DAY CARE HOMES, MEDICAL AND DENTAL WAITING ROOMS, MIL. FAM. HOUSING, ETC.(5a)

OTE ENS E INSPECTION/EVALUATION PROGRAM AND OCCU NT LEAD EXPOSURE PREVENTION EDUCATION

chips, and evidence that children have been chewing or mouthing on painted surfaces.

b. If the surfaces are in good condition and there are no signs of paint deterioration or chewing:

(1) Instruct the occupants on proper care and maintenance of painted surfaces (vacuum frequently, wash surfaces with high-phosphate detergents, and watch for and immediately report signs of surface deterioration to Base Civil Engineering and Base Bioenvironmental Engineering).

(2) Schedule the facility for LBP testing and analysis in accordance with the established management plan. If the analysis for lead is negative, document findings. No further action is required. If the analysis for lead is positive, in-place management, including painting with latex paint, must be performed, and the facility must be considered for abatement based on the established management plan.

(3) When evaluating the risk of hazardous exposure and determining appropriate actions (abatement, in-place management, etc) in child development centers and annexes, ensure adequate consideration is given to the number of children present, the level of supervision available, the potential for day-to-day activities to damage painted surfaces, and the potential for contamination of playground soil near the building.

c. If there are signs of paint deterioration, including evidence of chewing, and the facilities <u>are currently occupied by families with children under seven years of age or are otherwise considered high priority (child development centers, etc)</u>, action must be taken as soon as possible to make a confirmed determination of whether or not the facility paint contains lead.

(1) Quantitatively test the paint for lead using an X-ray fluorescent spectrum analyzer according to the guidance manual to be provided by Armstrong Laboratory (paragraph 9a).

(2) If lead is found exceeding an action level of 0.5 milligrams per square centimeter in confirmation mode (or 0.5 percent by weight by laboratory test) or testing cannot be completed in an expedient time frame as determined by Base Bioenvironmental Engineering:

(a) Ensure children are removed from the hazard area as soon as possible and instruct the occupants to report to the medical treatment facility to have blood lead level determinations performed on children under age seven.

(b) Based on the degree of hazard determined by the professional judgment of Base Bioenvironmental Engineering in consultation with Base Civil Engineering representatives, complete actions determined to be appropriate for the circumstances:

closing off the area, occupant relocation, in-place management, abatement, and/or cleanup. If the area involved is in a child development center, annex, or playground or an AF-licensed day care home, coordinate actions with the Morale, Welfare, Recreation, and Services office responsible for child care facilities. Perform clearance sampling before reoccupying the facility. If total abatement has not been performed, instruct the occupants on proper care of painted surfaces and determine follow-up inspection requirements and future disposition of any remaining LBP in the facility based on the established management plan.

(c) See additional considerations for child development centers and annexes in paragraph 8b(3).

(3) If lead above the action level is not found, document the finding. No further action is required.

d. If there are signs of paint deterioration in MFH units which are not currently occupied by families with children under seven years of age and are not used as a family day care home, instruct the occupants that the facility will be scheduled for in-place management and cleanup at the earliest possible date and that the painted surfaces should not be disturbed by self-help or other activities. Base Civil Engineering should ensure that the facility is evaluated for LBP content during normal facility renovation and upgrade. They must also ensure no children under age seven occupy the facility until it is either confirmed not to contain LBP or appropriate in-place management or abatement, clean-up, and occupant education on care of painted surfaces have been completed.

9. Testing for Lead in Paint Films. There are two methods for testing paint films for lead content:

a. Quantitative Testing. In-place testing of paint films by a portable X-Ray Fluorescence (XRF) Spectrum Analyzer, laboratory analysis of paint samples by an Atomic Absorption Spectrum (AAS) Analyzer, or other accurate techniques approved by the American Society for Testing Materials (ASTM) or similar recognized technical authorities. Procedures for quantitative determination of lead are available from Armstrong Laboratory. Note that the XRF action level is set lower than that specified by the HUD guidelines (reference 1d) to compensate for inaccuracies in the instrument and to reduce the need for laboratory confirmation of readings close to 1.0 milligrams per square centimeter.

b. Qualitative Testing. Spot testing which can determine the presence but not the amount of lead in paint films.

(1) Solvent Resistance Test. Paint binders or polymers vary in their resistance to solvent spot tests, and paints can be separated into generic types by these tests. The following are

the most common types and their solvent resistance:

(a) Latex paints, which normally do not contain lead, soften in alcohols. Other paints do not.

(b) Alkyds and oleoresinous paints (enamels, trim paints, exterior house paints) soften in methyl ethyl ketone. They are the binders most often used for LBP.

(c) Epoxy and polyurethane paints do not soften in alcohols and methyl ethyl ketone. They may contain lead pigments.

(2) Lead Detection Spot Tests. There are two Consumer Products Safety Agency recommended spot tests for lead: sodium sulfide and sodium rhodizonate. These reagents change color in the presence of lead but do not accurately indicate the amount of lead.

(3) Since all layers of paint down to the substrate must be exposed to the solvent or reagent, these tests are slightly destructive and touch-up will be required unless work is to be performed immediately afterwards. Ensure a sufficient number of tests are performed on the various types of surfaces and locations where work is to be performed.

10. Precautions To Take When Disturbing LBP. Precautions must be taken to protect facility occupants (especially children), workers, and the environment when disturbing LBP during in-place management, abatement, maintenance, repair, modification, renovation, upgrade, and demolition activities. Table 1 (pages 12 and 13) contains a summary of which regulations and guidelines normally apply depending on the type of facility and surface involved if acceptable qualitative or quantitative testing is not used to clearly establish the absence of LBP. Personnel performing these activities must be properly trained so that they understand the potential hazards involved and can apply the appropriate measures to prevent hazardous exposure (paragraph 13). Additional application guidance is provided in paragraph 11.

a. HUD Guidelines (reference 1d) were developed in response to the LBPPPA. They address occupant protection measures, as well as many of the precautions contained in other regulations, to be taken when performing abatement activities. They also specify an action level (more than 1 milligram of lead per square centimeter or more than 0.5 percent of lead by weight) which determines when LBP must be abated in Public and Indian Housing. They are considered to be the best available information for safely performing abatement activities in housing facilities. Due to their emphasis on protection of children, the following general precautions should be considered for all activities disturbing LBP in high-priority facilities. These are in addition to the worker and environmental protection requirements specified in the regulations below.

(1) Preplanning

(2) Choosing an Abatement Strategy

(3) Occupant Protection When Abating LBP

(4) Laboratories for Paint, Dust, and Blood Lead Analysis

(5) Quality Assurance Guidance

(6) Cleanup and Clearance Sampling Process

(7) Worker Training

b. The 29 C.F.R. 1926 and 29 C.F.R. 1910.1025 (references 1e and 1f) specify measures to protect workers against hazardous exposure to lead in the construction and general industry. They include the permissible exposure limit (PEL), exposure monitoring, engineering, work practice and administrative controls, respiratory protection, protective clothing, house-keeping and hygiene, medical surveillance, employee training, warning signs, and "hazard communication." Air Force activities (in-house and contract) must adhere to the stricter general industry standard (29 CFR 1910) for all work. Do not use the construction work standard (29 CFR 1926). Refer to the general industry standard in contract specifications. Note that many requirements can be simplified or avoided if work practices which reduce and control dust (wet sanding, wet drilling, etc) are used.

c. The 40 C.F.R. 50.12 (reference 1g) contains ambient air quality standards that are levels of air quality which the Environmental Protection Agency determines necessary to protect public health and welfare. Check with the local regulatory agency to determine the applicability of ambient air quality standards to large-scale, lead-abatement projects.

d. RCRA regulations (reference 1h) specify that LBP debris is considered a hazardous waste when the leachant exceeds 5 parts per million from a 100-gram sample or 5 milligrams per liter by the Toxicity Characteristic Leaching Procedure (TCLP). They also specify transportation, treatment, storage, and disposal requirements.

e. The 40 C.F.R. 302 (reference 1i) implements the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLA regulations contain notification requirements when hazardous substances are accidentally released into the environment in quantities equal to or in excess of the reportable quantity (RQ). The RQ for lead is one pound.

f. P.L. 102-550, enacted 29 October 1992, makes the Federal Government subject to the same stringent LBP laws and regulations as nongovernment entities, including certification, licensing,

TABLE 1

Summary of Likelihood of Lead-Based Paint (LBP) Being Present
and
Regulations/Guidelines Which Normally Must Be Followed

HIGH-PRIORITY (H-P) FACILITIES

Facility Type	LBP Likely	HUD	OSHA	RCRA	AIR
MFH/Day Care Home, Before 1980	Yes	Yes	Yes	Yes	No
MFH/Day Care Home, During/After 1980	No	Yes	No	No	No
Other H-P Facilities Before 1980	Yes	Yes	Yes	Yes	No
Other H-P Facilities, During/After 1980, Ferrous Metal Surface	Yes*	Yes	Yes	Yes	No
Other H-P Facilities, During/After 1980, Other Surfaces	No**	Yes	No	No	No

OTHER FACILITIES (NOT H-P)

Facility Type	LBP Likely	HUD	OSHA	RCRA	AIR
Steel Structures	Yes	No	Yes	Yes	Yes
Industrials	Yes	No	Yes	Yes	No
Painted Yellow Pavement Markings	Yes	No	Yes	Yes	No
Nonindustrials, Ferrous Metal Surfaces	Yes*	No	Yes	Yes	No
Nonindustrials, During/After 1980, Other Surfaces	No**	No	No	No	No

* CPSC restriction uncertain but common practices favor lead present

** CPSC restriction uncertain but common practices favor lead absent

TABLE 1
(CONTINUED)

HUD - Housing and Urban Development Interim Guidelines

OSHA - Occupational Safety and Health Administration

RCRA - Resource Conservation and Recovery Act

AIR - National Primary and Secondary Ambient Air Quality Standards

CPSC - Consumer Product Safety Act

Notes:

1. Likelihood of finding LBP on a particular surface in a facility is based on when it was constructed (before 1980 or during/after 1980), applicability of CPSC restrictions on use of LBP, and common painting practices (paragraphs 3b and 3c).

2. Although LBP may not be likely, some precautions described in the HUD guidelines will normally be considered in high-priority facilities since children are potentially at risk and there is some possibility that LBP is present.

3. Occupant protection measures which must be followed during and after activities which disturb LBP in high-priority facilities are covered in the HUD guidelines. In other facilities, ensure occupants are not exposed to lead above the OSHA permissible exposure level (PEL) during these activities and all dust and debris are removed afterwards.

4. Refer to paragraphs 10 and 11 for detailed information on applying regulations and guidelines.

record keeping, and the payment of reasonable service charges. The statute's wording is broad. It applies to all personnel of all Federal Government agencies which have control over Federal property, or who may be engaged in any activity which does or may relate to a LBP hazard. The statute requires compliance with all laws dealing with LBP, LBP activities, and LBP hazards, whether the law is a federal, state, interstate, or local law. To permit effective enforcement of this statute, the United States has waived its immunity from lawsuit, subjecting the United States Government to all remedies provided for in the violated federal, state, interstate, or local laws.

g. Occupant Protection Measures. HUD guidelines cover occupant protection measures which must be followed during and after activities which disturb LBP in high-priority facilities. In other facilities, ensure occupants are not exposed to lead above the OSHA PEL by removing them from the work area, isolating the area with physical barriers and warning signs and, if necessary, providing a containment system to ensure other areas are not contaminated by dust and debris. A thorough normal cleanup and washing of the work area must be performed afterwards to ensure all dust and debris are removed.

11. Facility Maintenance, Repair, Modification, and Renovation Activities. Perform or specify that the following actions be performed when activities will disturb painted surfaces in high-priority facilities and other facilities likely to contain lead:

a. Determine if LBP is present prior to start of work. Qualitative testing (paragraph 9b) should be conducted on surfaces most likely to contain LBP and that will be disturbed during the project. Testing should be done in the early planning phase of the project to ensure adequate funds are programmed. Take or require additional precautions depending on the amount of LBP to be disturbed. The determination of whether the work is a small or large project must be made by trained workers or by Base Bioenvironmental Engineering in consultation with Base Civil Engineering. For contract work, a complete description of the testing used to determine the presence or absence of LBP must be provided to the contractor.

b. For small jobs which are performed over a limited area and can easily incorporate work practices which reduce, contain, and prevent dust from contaminating any area of the facility:

(1) If lead is found, take the following precautions: Ensure occupants, especially children, are removed from the work location and the area closed off. Prevent creation of dust using wet sanding, wet drilling, etc. Do not use dry sanding, heat guns, or compressed air. Keep debris wet until it is collected and dispose of it properly. Note: For small amounts of debris, it may be more economical to assume it is hazardous waste without TCLP testing.

(2) If no lead is found, no LBP precautions are required.

c. For large projects which disturb large painted surfaces and dust and debris cannot be reliably controlled solely by work practices specified above:

(1) If lead is found, the in-house workers or contractor must follow all regulatory requirements to ensure adequate occupant, worker, and environmental protection (paragraph 10). A plan for performing the work must be submitted to Base Environmental Engineering (and Base Civil Engineering if performed by contract) for approval. In high-priority facilities, special cleanup actions such as those specified for in-place management and abatement activities and clearance testing must be performed and coordinated with Base Bioenvironmental Engineering. Collect and dispose of all debris. Debris must be tested (TCLP) to determine if it must be classified as hazardous waste.

(2) If no lead is found, normal cleanup of the work areas should be performed.

12. Restricting the Use of Lead-Based Paint. The Consumer Product Safety Act (reference 1a) restricted lead in liquid paints or coatings to no more than 0.06 percent lead by weight of the nonvolatile solids for use in nonindustrial facilities. Part 35 of 24 C.F.R. (reference 1b) placed a similar restriction on paints and coatings used by federal agencies in the construction or rehabilitation of any residential structure. In accordance with Air Force policy, this restriction is now applicable to paints used in all facilities, industrial and nonindustrial. This is to reduce the potential LBP risk on installations and to minimize the precautions which will be needed when working on painted surfaces in the future.

13. Personnel Training Requirements. Personnel who perform tests for LBP and work on painted surfaces must be trained to varying degrees so they will understand the potential hazards involved and will be able to competently handle assigned tasks.

a. The Environmental Protection Agency (EPA) has established EPA-Approved Regional Lead Training Centers at the following sites: University of Massachusetts - Amherst, University of Maryland, University of Cincinnati, Georgia Institute of Technology, University of Kansas, and University of California - San Diego.

b. Training Certification and Documentation. At least one person from Base Civil Engineering at each installation should attend one of the above EPA-approved courses and receive certification of attendance. This person can then be the certified trainer for the installation and train other employees on the proper precautions to take and the potential hazards

involved when performing activities which disturb painted surfaces. All training must be documented in the employee's official personnel folder and must be conducted by personnel who have been trained at an EPA-Approved Regional Lead Training Center or an equivalent in-house training program presented by a certified trainer.

c. Level of Training. The level of training that various workers will receive should be determined locally based on the in-house capability desired.

(1) A minimum level of training must be provided to all workers who perform activities which disturb painted surfaces. This minimum training, which is adequate for workers performing small jobs, must include the potential hazards of LBP (hazard communication), work practices to reduce and control dust and debris, handling of debris, hygiene, and cleanup procedures. Those who will be performing qualitative testing for the presence of lead must also receive training in the applicable procedures.

(2) Workers who will be performing larger jobs in which simple work practices will not reliably reduce or control dust and those who will be assisting in LBP evaluations (paragraph 7d) must receive additional training in OSHA and HUD requirements.

(3) The LBP point of contact (POC), on-site supervisors of crews performing large projects involving LBP, and inspectors of such projects must be trained at one of the EPA-Approved Regional Lead Training Centers or an equivalent in-house training program presented by a certified trainer.

14. Lead Toxicity Investigation (LTI). LTIs are required when children with elevated blood lead levels are identified.

a. The Chief of Aerospace Medicine (SGP) will establish an LTI team consisting of representatives from Base Civil Engineering, Base Bioenvironmental Engineering, Military Public Health (MPH), Public Affairs (PA), and Judge Advocate (JA) as needed.

b. When notified of a child with elevated blood lead levels:

(1) MPH will interview the family.

(2) SGP will convene a meeting of the LTI team to review questionnaire results and determine the history of LBP in the subject facility.

(3) The LTI team will establish an investigation plan to determine the source of lead (facility paint, water, soil, ceramics, etc).

(a) For investigations of Air Force facilities, follow the procedures in paragraph 8.

(b) If the source is located off base, consult with JA to determine appropriate actions.

(4) The LTI team will recommend actions needed to remediate the source of lead and protect facility occupants.

15. Major Command (MAJCOM) Responsibilities. MAJCOM functional areas are responsible for managing execution and ensuring compliance with applicable policy requirements and guidance at its bases and for programming and budgeting necessary resources. As a minimum, ensure all bases have management plans in place and all necessary LBP inspections and evaluations on high-priority facilities are performed in accordance with established milestones. Management plans and associated initial inspections and evaluations sufficient to characterize the health risk from LBP in high-priority facilities on bases, establish priorities and milestones for additional evaluations and remedial actions, and support programming/budgeting requirements must be accomplished no later than 12 months after policy/guidance publication.

16. Base-Level Responsibilities.

a. Base Civil Engineering will:

(1) In coordination with Base Bioenvironmental Engineering, Legal, and representatives from high-priority facilities, develop and implement the management plan for identifying, evaluating, managing, and abating lead-based paint.

(2) Ensure adequate precautions are taken during all maintenance, repair, renovation, and construction activities which disturb painted surfaces in high-priority facilities and other facilities likely to contain LBP and which are performed in-house, by contract, or self-help. Incorporate LBP criteria and considerations into all construction, operations and maintenance (O&M), and MFH programs and budget for requirements.

(3) Establish a POC to oversee the O&M, infrastructure, and construction-related activities involving LBP.

(4) Train civil engineering personnel who perform activities which disturb painted surfaces and develop in-house capability to in-place manage and abate LBP. The extent to which in-house capability is developed shall be determined locally based on the particular circumstances and requirements at each installation, with an emphasis on the capability to respond to contingency situations and incidents of lead exposure.

(5) Instruct facility managers, facility inspectors, planners, and other select personnel to report deteriorated

...ority facilities and implement procedures to ...cted circumstances are properly acted upon. ...acility managers that painted surfaces in ...ly to contain LBP not be disturbed by self-help ...vities.

Perform in-place management and abatement ...n-house or by contract. Perform occupant ... as necessary. Assist Base Bioenvironmental ...g in evaluations of facilities for potential and ...BP hazards.

(7) With the assistance of the BEE, ensure that ...es are inspected in priority order for deteriorated ... surfaces.

(8) Develop (or require contractors to develop) work ..., which are reviewed by the base bioenvironmental engineer ...r to performing large projects which will disturb LBP.

b. Chief, Aerospace Medicine, will:

(1) Ensure a coordinated epidemiological analysis of facility lead sampling results and positive pediatric lead analysis is accomplished.

(2) Chair the LTI team meetings.

c. Base Bioenvironmental Engineering will:

(1) Conduct sampling and testing of paint to determine the lead content for the purpose of assessing the hazard potential in high-priority facilities.

(2) Determine if LBP in a facility poses a hazard (hazard determination).

(3) Consult with the BCE and assist in determining the in-place management and/or abatement measures to be taken to reduce or eliminate a hazard.

(4) Conduct air sampling and personnel monitoring, as necessary, to determine lead exposures in facilities during in-place management, abatement, and other activities which disturb LBP.

(5) With the assistance of the BCE, conduct walk-through inspections and evaluations of high-priority facilities to determine if there are existing hazards due to LBP.

(6) Conduct or oversee the accomplishment and results of clearance sampling which is performed after in-place management, abatement, maintenance, repair, modification, and renovation activities disturbing LBP.

d. Military Public Health will:

(1) Investigate incidents of possible lead exposure.

(2) Provide a lead exposure prevention education program that includes instructions to occupants of MFH, facility managers, inspectors, etc, on potential LBP hazards and lead-toxicity symptoms.

e. Base Supply will ensure paints with lead above the regulated amount are not issued for use in any facility. On-hand quantities will be disposed of in accordance with hazardous property disposal procedures.

17. Points of Contact: Direct questions regarding this subject that cannot be resolved at the installation or MAJCOM level to HQ AFMOA/SGPA, DSN 297-1736, or HQ AFCESA/ENE, DSN 523-6359.

Air Force Asbestos Policy

DEPARTMENT OF THE AIR FORCE
WASHINGTON DC

OFFICE OF THE ASSISTANT SECRETARY

25 MAR 94

MEMORANDUM FOR AFBCA/DR, AF/CE

FROM: SAF/MIQ

SUBJECT: Asbestos Policy for Closure Bases - ACTION MEMORANDUM

This memorandum transmits the asbestos policy to be used at all closure bases that are identified in the Base Realignment and Closure Process. This policy supersedes all previous SAF/MIQ policy on this subject. My point of contact on this matter is Lt Col Mark Hamilton at 693-7548.

ALAN P. BABBITT
Acting Deputy Assistant Secretary
of the Air Force
(Environment, Safety and
Occupational Health)

Attachment:
Policy

cc:
AFMOA/SGPA

AIR FORCE POLICY FOR MANAGEMENT OF ASBESTOS CONTAINING MATERIAL (ACM) AT CLOSURE BASES

This policy applies specifically to property being disposed of through the Base Realignment and Closure (BRAC) process and supersedes all previous policy on this matter.

1. REFERENCES

a. Asbestos Hazard Emergency Response Act (AHERA).

b. Federal Tort Claims Act, 28 U.S.C. § 2671.

c. 40 CFR Part 61, Subpart M - National Emission Standards for Hazardous Air Pollutants (NESHAPS).

d. 29 CFR Section 1910.1001 - Occupational Safety and Health Administration (OSHA) general industry standard for asbestos.

e. 29 CFR Section 1926.58 - Occupational Safety and Health Administration (OSHA) construction industry standard for asbestos.

f. 40 CFR Part 302 - Designation, Reportable Quantities, and Notification.

g. 41 CFR Section 101-47.304-13 - Federal Property Management Regulations provisions relating to asbestos.

h. AFI 32-1052, Facility Asbestos Management.

i. AFI 32-7066, Environmental Baseline Surveys in Real Estate Transactions.

2. DEFINITIONS

a. **Asbestos** - A group of naturally occurring minerals that separate into fibers, including chrysotile, amosite, crocidolite, asbestiform anthophyllite, asbestiform tremolite, and asbestiform actinolite

b ACM - Asbestos-containing Material Any material containing more than one percent asbestos

c **Accredited Asbestos Professional** - Air Force Bioenvironmental Engineer or any other professional who is accredited through EPA's asbestos model accreditation plan or other equivalent method

EXCEPTION: Remediation of ACM by AFBCA will not be accomplished if the transferee is willing to conduct remediation in accordance with applicable standards prior to beneficial occupancy as part of the transfer agreement.

d. **Full Disclosure.** AFBCA will make a full disclosure to the extent known of the types, quantities, locations, and condition of ACM in any real property to be conveyed, leased, sold, or otherwise transferred. Results of ambient air sampling will also be disclosed where available. This disclosure will normally be included in appraisal instructions, invitations for bids or offers to purchase, advertisements and contracts for sale, leases, and deeds.

e. **Management of ACM.** ACM remaining in a facility will be managed in-place using commonly accepted standards, criteria, and procedures in compliance with all applicable laws and regulations to assure the protection of human health and the environment. The responsibility for this management will be transferred to the owner or lessee by execution of the appropriate documents.

4. EFFECTIVE DATE

This policy becomes effective on the date signed and remains in effect until superseded.

Alan J. Babbitt — 3/25/94

ALAN P. BABBITT
Acting Deputy Assistant Secretary of the Air Force
(Environment, Safety, and Occupational Health)

Date

DOD POLICY ON ASBESTOS AT BASE REALIGNMENT AND CLOSURE PROPERTIES

Department of Defense (DoD) policy with regard to asbestos-containing material (ACM) is to manage ACM in a manner protective of human health and the environment, and to comply with all applicable Federal, State, and local laws and regulations governing ACM hazards. Therefore, unless it is determined by competent authority that the ACM in the property does pose a threat to human health at the time of transfer, all property containing ACM will be conveyed, leased, or otherwise disposed of as is through the Base Realignment and Closure (BRAC) process.

Prior to property disposal, all available information on the existence, extent, and condition of ACM shall be incorporated into the Environmental Baseline Survey (EBS) report or other appropriate document to be provided to the transferee. The survey report or document shall include:

- reasonably available information on the type, location, and condition of asbestos in any building or improvement on the property;
- any results of testing for asbestos;
- a description of any asbestos control measures taken for the property;
- any available information on costs or time necessary to remove all or any portion of the remaining ACM; however, special studies or tests to obtain this material are not required; and
- results of a site-specific update of the asbestos inventory performed to revalidate the condition of ACM.

Asbestos-containing material shall be remedied prior to property disposal only if it is of a type and condition that is not in compliance with applicable laws, regulations, and standards, or if it poses a threat to human health at the time of transfer of the property. This remediation should be accomplished by the active Service organization, by the Service disposal agent, or by the transferee under a negotiated requirement of the contract for sale or lease. The remediation discussed above will not be required when the buildings are scheduled for demolition by the transferee; the transfer document prohibits occupation of the buildings prior to the demolition, and the transferee assumes responsibility for the management of any ACM in accordance with applicable laws.

94 68

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE BASE DISPOSAL AGENCY

17 JUN 1994

MEMORANDUM FOR AFBCA ENVIRONMENTAL STAFF AND BRAC ENVIRONMENTAL COORDINATORS

FROM: AFBCA/EV

SUBJECT: Removal of Vinyl Asbestos Tile (VAT)

Attached for your information and implementation is DUSD(ES) guidance on vinyl asbestos tile. You will note the concern that the Services may be removing VAT without good cause and expending government funds unnecessarily.

As indicated, DOD policy does not require removal of VAT unless, in the judgment of a professional, it presents a potential health risk. Further, for those facilities at closing/closed installations, DoD policy is to manage VAT in place.

We endorse this "common sense" approach to managing VAT. For our part, Environmental staff across AFBCA and particularly the BEC's, need to review proposed asbestos survey and abatement/removal projects to ensure this guidance is incorporated into statements of work, plans, specifications, etc.

Terry A. Yonkers

TERRY A. YONKERS
Chief, Environmental Programs

Attachment:
DUSD(ES) Memo 3 Jun 94 w/atch

cc:
PM's
AFCEE/ES/EC

94 6?

OFFICE OF THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON
WASHINGTON DC 20301-3000

ACQUISITION AND TECHNOLOGY

JUN 1994

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY (INSTALLATIONS LOGISTICS AND ENVIRONMENT)
ASSISTANT SECRETARY OF THE NAVY (INSTALLATIONS AND ENVIRONMENT)
ASSISTANT SECRETARY OF THE AIR FORCE (MANPOWER, RESERVE AFFAIRS, INSTALLATIONS AND ENVIRONMENT)
DIRECTOR, DEFENSE LOGISTICS AGENCY (D)

SUBJECT: Removal of Vinyl Asbestos Tile (VAT)

This is to express my concerns about possible unnecessary and expensive removal of vinyl asbestos tile (VAT) floor covering on Department of Defense (DoD) installations.

We have learned that extensive VAT removal projects have been accomplished, are being considered, or are underway in the DoD Components. In many cases, the removal decision appears to be based upon the simple presence of VAT and the subsequent perception of a health hazard.

Neither the Occupational Safety and Health Administration nor the Environmental Protection Agency prohibit the use of VAT. Neither requires removal. DoD policy does not specify removal but does require the assessment of potential health hazards and the exercise of professional judgment in the assignment of priorities for abatement actions (Reference: DoD Instruction 6055.5). With regard to transfer of DoD facilities under base closure and realignment, DoD policy is to manage potential VAT health hazards in place.

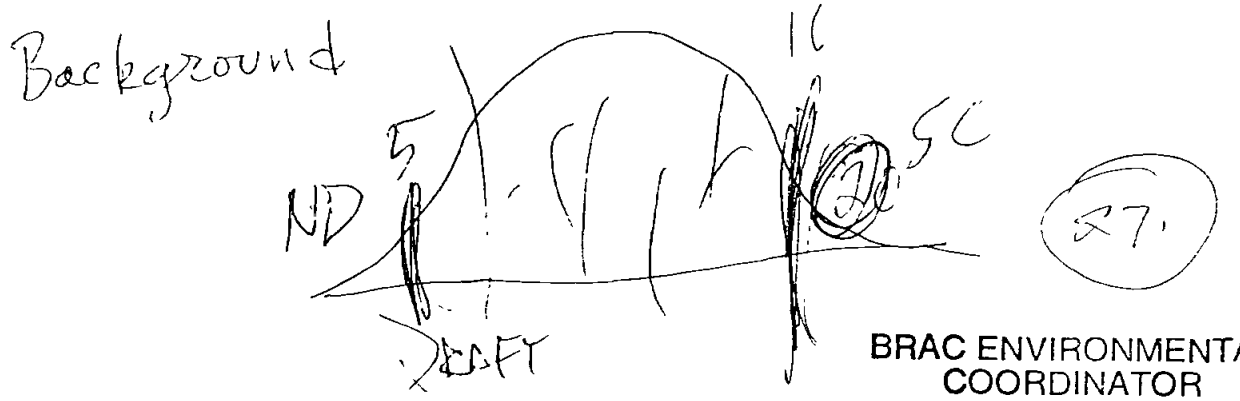
There are cases where flooring must be removed for maintenance or refurbishment. In general, with a few basic precautions, tiles may be removed safely and inexpensively. Early contact in planning such work with occupational health professionals could save considerable, unnecessary costs when risk assessments are accomplished.

Please ensure that risk assessments are an integral part of any proposed VAT removal projects in your Component. If we can provide any additional information, please have your staff contact George Siebert at 703-604-5680.

Sherri W. Goodman
Deputy Under Secretary of Defense
(Environmental Security)

AOI Scope Creek

Two samples of creek sediments did detect arsenic over the proposed Missouri Department of Health's "Any-Use Level" of 11 mg/kg. However, arsenic has been detected in 22 of the 24 samples collected all over the property with an average of 7 mg/kg. According the USGS (1984), the background concentrations for the area range is 20-80 mg/kg. USEPA Office of Solid Waste and Emergency Response found that the typical background level range is 1-50 mg/kg. The maximum concentration found (27 mg/kg) was within expected background levels. The Air Force Base Conversion Agency will take no further action at AOI Scope Creek.



FINAL PAGE

ADMINISTRATIVE RECORD

FINAL PAGE